PB81-162190

Research, Demonstration, Training, and Fellowship Awards

(U.S.) Environmental Protection Agency
Washington, DC

Mar 80

U.S. Department of Commerce
National Technical Information Service
NTIS

United States
Environmental Protection
Agency

Grants Administration
Division (PM-216)
Washington, DC 20460

EPA-GAD/1-80-01
October–March 1980

PB81-162190

EPA

Research, Demonstration, Training, and Fellowship Awards

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INTRODUCTION

This publication provides information about the Environmental Protection Agnecy's State and Local Assistance Program Grants awarded during the period October 1979 - March 1980. It is a companion publication to Research, Demonstration, training, and Fellowship awards which lists grants awarded during this time period other than those to State and Local agencies.

The data is listed by State, program, and grantee name. Each record provides applicant name, municipality, title, project director, grant identification number, type of grant award, date and dollar amount of award.

Any comments should be directed to Connie Nuchurch, Grants Information Systems and Reports Branch (PM-216), Grants Administration Division on (202) 755-0332.

SOURCES OF INFORMATION ON EPA GRANTS AWARDED, REPORTS GENERATED BY GRANTS AND OTHER GRANT RELATED MATERIALS

Research, Demonstration, Training, and Fellowship Awards

Section I lists research, demonstration, training, and fellowship awards by State, Program and grantee name. Each record provides applicant name, municipality, program element, title, project director, grant identification number, type of grant award, date and dollar amount of award. Section II contains brief project descriptions for research and demonstration projects administered by Headquarters and is arranged in ascending order by the grant identification number. An index is provided for cross-referencing the information between Sections I and II.

1st Half of FY 1977 (October 1976 - March 1977)
EPA-GAD/ 1-78-01, NTIS Number PB278942, price $7.25

2nd Half of FY 1977 (April 1977 - September 1977)
EPA-GAD/ 1-78-02, NTIS Number PB283959, price is $21.50

1st Half of FY 1978 (October - March 1978)
EPA-GAD/ 1-78-03, NTIS Number PB289857, price $9.00

2nd Half of FY 1978 (April 1978 - September 1978)
EPA-GAD/ 1-78-02, NTIS Number and price to be assigned.

1st Half of FY 1979 (October 1978 - March 1979)
EPA-GAD/ 1-79-01, NTIS Number and price to be assigned.

2nd Half of FY 1979 (April 1979 - September 1979)
EPA-GAD/ 1-79-02, NTIS Number and price to be assigned.

1st Half of FY 1980 (October 1979 - March 1980)
EPA-GAD/ 1-80-01, NTIS Number and price to be assigned.

State and Local Grant Awards

Lists all State and Local Assistance Awards by State, by program, and by grantee name. Format the same as for Research, Demonstration, Training, and Fellowship Awards listed above.

1st Half of 1977 (April 1976 - March 1977)
EPA-GAD/ 2-78-01

2nd Half of FY 1977 (April 1977 - September 1977)
EPA-GAD/ 2-78-02, NTIS Number PB282687, Price $15.25

1st Half of FY 1978 (October 1977 - March 1978)
EPA-GAD/ 2078-03, NTIS Number and price to be assigned.

2nd Half of FY 1978 (April 1978 - September 1978)
EPA-GAD/ 2-79-01, NTIS Number and price to be assigned.

1st Half of FY 1979 (October 1978 - March 1979)
EPA-GAD/ 2-79-02, NTIS Number and price to be assigned.

2nd Half of FY 1979 (April 1979 - September 1979)
EPA-GAD/ 2-79-03, NTIS Number and price to be assigned.

1st Half of FY 1980 (October 1979 - March 1980)
EPA-GAD/ 2-80-02, NTIS Number and price to be assigned.

Awards Register, Volume II, Continued

1st Half of FY 1975 (July 1974 - December 1974)
EPA-GAD/1-75-002, NTIS Number PB241400, price $9.00, Microfiche, $3.00.

2nd Half of FY 1975 (January 1975 - June 1975)
EPA-GAD/1-75-004, NTIS Number PB245576, price $11.75, Microfiche, $3.00.

Awards Register, Grants Assistance Programs of EPA
Fiscal Year 1974 (July 1973 - June 1974)

Volume I.	Lists all awards in Fiscal Year 1974 except Waste Water Treatment Construction and Waste Water Treatment Reimbursement Awards. NTIS N-mber PB238370, price $8.00, microfiche, $3.00.
Volume II.	Lists only Waste Water Treatment Construction Awards in Fiscal Year 1974. NTIS Number PB238371, price $9.25, microfiche, $3.00.
Volume III.	Lists only Waste Water Treatment Reimbursement Awards in Fiscal Year 1974. NTIS Number PB238372, price $9.00, microfiche, $3.00.

Awards Register, Grants Assistance Programs of EPA
Fiscal Year 1973 (July 1972 - June 1973)

The format of this publication has the initial sort by State. Each entry includes grantee identification, program area, grant title, grant number, award date, and dollar amount. Environmental Protection Agency 220/1-73-004, NTIS Number PB229827, price $15.25, microfiche $3.00.

The above publications can be purchased from:

National Technical Information Service (NTIS)
Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
(703) 557-4650

Awards Register, Grants Assistance Programs of EPA

Volume I. Section I lists research, demonstration, training and fellowship awards by State, program, and grantee name. Each record provides applicant name, municipality, program element, title, project director, Grant Identification Number, type of grant award, date and dollar amount of award. Section II contains brief project descriptions for research and demonstration projects administered by Headquarters and is arranged in ascending order by the Grant Identification Number. An index is provided for cross-referencing the information between Sections I and II. Section III is a cross-walk for use in identifying the program/subprogram area of a grant in accordance with classifications of our Office of Research and Development.

1st Half of FY 1976 (July 1975 - December 1975)
EPA-GAD/1-76-001, NTIS Number PB252893, price $5.25

2nd Half of FY 1976 (January 1976 - June 1976)
EPA-GAD/1-76-003, NTIS Number PB260742, price $9.00

Transition Quarter of FY 1976 (July 1976 - September 1976)
EPA-GAD/1-76-005, NTIS Number PB275407/AS, price $8.00

1st Half of FY 1975 (July 1974 - December 1974)
EPA-GAD/1-75-001, NTIS Number PB241476, price $5.25,
Microfiche, $3.00

2nd Half of FY 1975 (January 1975 - June 1975)
EPA-GAD/1-75-003, NTIS Number PB245575, price $10.75,
Microfiche $3.00

Volume II. Lists all State and Local Assistance Awards by State, by program, and by grantee name. Contents and format the same as for Volume I, Section I.

1st Half of FY 1976 (July 1975 - December 1975)
EPA-GAD/1-76-002, NTIS Number PB253091, price $11.00

2nd Half of FY 1976 (January 1976 - June 1976)
EPA-GAD/1-76-004, NTIS Number PB261980, price $11.00

Transition Quarter of FY 1976 (July 1976 - September 1976)
EPA-GAD/1-76-006, NTIS Number PB275408/AS, Price $9.00

Awards Register, Grants Assistance Programs of EPA
Fiscal Year 1972 (July 1971 - June 1972)

This publication is currently out of print. It is available for reference at all EPA libraries and at EPA Headquarters, Grants Administration Division, 401 M Street SW, Washington, D.C.

FEDERAL ASSISTANCE PROGRAMS OF THE ENVIRONMENTAL PROTECTION AGENCY

This publication includes descriptive information about Environmental Protection Agency assistance programs reprinted from the Catalog of Federal Domestic Assistance, which was prepared for the Office of Management and Budget. Similar information on programs of all Federal agencies is included in the Catalog which is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20420 for $18.00 and includes changes as issued. It is also available for public use in Federal Depository Libraries.

Copies of this publication may be obtained from the Environmental Protection Agency, Grants Operations Branch, Grants Administration Division (PM-216), Office of Planning and Management, Washington, D.C. 20460.

NOTE: All of the preceeding publications are available for examination at the Grants Administration Division and Library of EPA Headquarters and each Regional office.

OTHER GRANT-RELATED INFORMATION

A brief summary of a grant project is available on the majority of research and demonstration grants.

These summaries are available for projects that have received Federal funding. In rare instances, a grant application may contain privileged information and is so designated. For these, only the award data, such as grant number, applicant name, organization, location, grant title, amount awarded, and award date is available. Other information may be available depending on the particular circumstances.

The Smithsonian Science Information Exchange (SSIE), room 300, 1730 M Street, N.W., Washington, D.C. 20036, receives a copy of the summary of a grant and makes it available to the public on a fee basis. The cost of a print-out, if the Agency is identified and the grant or contract number is provided, costs $2.00 per grant number with a $10.00 minimum fee. A search on a subject (topic) is $60.00 per search service for 1 to 50 titles, and an additional charge of 25¢ per title. A search on the investigator's name can also be performed. All inquiries and requests for this service should be addressed to SSIE or phone (202) 381-4211.

REPORTS GENERATED BY GRANT SUPPORTED PROJECTS

Final reports and other program reports generated by grant supported projects are published and made available if merited. Final report information is available from the following program offices:

For solid waste management and resource recovery:

Publication and Distribution Unit
Office of Solid Waste Management
Environmental Protection Agency
Cincinnati, Ohio 45268

For air pollution control:

Library MD-35
Environmental Protection Agency
Research Triangle Park, North Carolina 27711

For pesticide publications:

Information Section WH-569
Office of Pesticide Programs
Environmental Protection Agency
401 M Street SW
Washington, D.C. 20460

For other research and demonstration projects:

Technology Transfer Staff
Office of Research and Development
Environmental Protection Agency
Cincinnati, Ohio 45268

EPA REPORTS BIBLIOGRAPHY QUARTERLY SUPPLEMENT

(sponsored by Library Systems Branch)

The EPA Cumulative Bibliography 1970-1976 published in December 1976 (NTIS Number PB265920, price quite obtained from NTIS) contains a bibliographic citation with abstracts for reports generated by EPA and its predecessor agencies and entered into the NTIS collection through 1976. Access points to this information are by Report Title; Subject (keyword); Corporate or Personal Author; Contract Number; and Accession/Report Number.

Beginning in March 1977, quarterly update supplements will be published listing and indexing EPA technical reports and journal articles entered into the NTIS collection during the preceding quarter. An additional index titled "Sponsoring EPA Office" is included as well. The fourth quarterly issue will cumulate and become the annual index for the year.

To order documents or subscriptions, contact the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. Do not order from the U.S. Environmental Protection Agency. If what you have ordered is in stock on hand, you should receive your order within two weeks after it arrives at NTIS. If what you have ordered must be reproduced from a microform, or if all the paper copies have been sold and reprints are in process, you should receive your order within four to six weeks. Infrequently, orders may be further delayed by a contractor's inability to deliver to NTIS. You will be notified if such a delay is expected.

The EPA Reports Bibliography Quarterly Supplement series is available on annual subscription from NTIS at a cost of $45.00 for North American Continent users (single copies, when available, are $12.50 each). For those outside the North American Continent, please write NTIS for prices.

The following EPA libraries maintain for reference purposes completed sets of EPA reports on microfiche.

Region I Library
Room 2211-B, JFK Federal Bldg.
Boston, Massachusetts 02203

National Marine Water Quality Lab
P. O. Box 277
West Kingston, Rhode Island 02892

Region II Library
26 Federal Plaza
New York, New York 10007

Region II Field Office Library
Edison, New Jersey 08817

Region III Library
Curtis Bldg., 6th & Walnut Streets
Philadelphia, Pennsylvania 19106

Headquarters Library, Room 2404 WSM
401 M Street, S.W.
Washington, D.C. 20460

Region IV Library
345 Courtland Street, N.E.
Atlanta, Georgia 30309

Library Services MD-35
Research Triangle Park
North Carolina 27711

Southeast Environmental Research Lab
College Station Road
Athens, Georgia 30601

Gulf Breeze Laboratory
Sabine Island, Bldg. 29
Gulf Breeze, Florida 32561

Region V Library
230 Dearborn Street, Rm. 1455-A
Chicago, Illinois 60604

Environmental Research Center Library
26 West St. Clair Street
Cincinnati, Ohio 45268

Environmental Research Lab-Duluth
6201 Congdon Boulevard
Duluth, Minnesota 55804

Region VI Library
First International Bldg.
1201 Elm Street
Dallas, Texas 75270

Robert S. Kerr Environmental Research
Laboratory
P. O. Box 1198
Ada, Oklahoma 74820

Region VII Library
1735 Baltimore Avenue, Room 249
Kansas City, Missouri 64108

Region VIII Library, 8M-ASL
1860 Lincoln Street
Denver, Colorado 80225

National Field Investigation Center
Room A-1209, Bldg. 53
Box 25227, Denver Federal Center
Denver, Colorado 80225

Region IX Library
100 California Street
San Francisco, California 94111

National Environmental Research Center
P. O. Box 15027
Las Vegas, Nevada 89114

Region X Library
1200 Sixth Avenue
Seattle, Washington 98101

National Environmental Research Center
200 S.W. 35th Street
Corvallis, Oregon 97330

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*PROJECT: 005212-OPTICAL EFFECTS OF ATMOSPHERIC AEROSOLS

                  TASK =GC2P -000535 **EPA=R800665-13  ** (GRANT)
                  STARTING/ COMPLETION DATE : 01/75 - 03/80 :   FY80
  EPA  OFFICER.: TG ELLESTAD               EPA/ESRL - RTP                FTS 8-629-2253
  INVESTIGATOR.: AP WAGGONER               UNIV OF WASHINGTON            ENG DEPT
  MILESTONES...: 12/79 -FIELD STUDY
                 03/80 -REPORT ON OPTICAL EFFECTS OF ATMOSPHERIC AEROSOLS
  PROGRAM ID...: (PE-C2P )           ATMOS TRANS OF ENERGY RELATED POLLUTANTS
  FINAL OUTPUT.: REPORT ON OPTICAL EFFECTS OF ATMOSPHERIC AEROSOLS
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: SUMMER 1979 FIELD STUDY HAS BEEN COMPLETED AND DATA
                 IS CURRENTLY BEING ANALYZED.
  ORDIS CODES..: RECN-005212          SSIE-GMA  6124 1      EPA -R800665-13       ORD -RG10B30-1080
                 LABN-G832B-EA-014    PE  -C2P              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS SUPPLEMENTAL PROGRAM IS TO SUPPORT THE UNIVERSITY OF WASHINGTON'S
                  PARTICIPATION IN THE DECEMBER 1979 VISTTA FIELD STUDY. APPROACH: A) MEASURE: OPTICAL SCATTERING
                  EXTINCTION, PARTICLE SIZE DISTRIBUTION, O3, AND SO2. INSTRUMENTS TO BE USED INCLUDE (1) A
                  32-WAVELENGTH TELEPHOTOMETER, (2) AN AEROSOL SIZING SYSTEM CONSISTING OF AN OPTICAL PARTICLE
                  COUNTER, ELECTROSTATIC MOBILITY ANALYZER, AND DATA SYSTEM, (3) CONTINUOUS GAS MONITORS FOR SO2 AND
                  O3.

*PROJECT: 003300-SOUTH CAROLINA OVERLAND FLOW PROJECT

                  TASK =L822C-000034 **EPA=R803929-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 12/75 - 01/81 :   FY79
  EPA  OFFICER.: BE BLEDSOE                EPA/ERL - ADA                 FTS 8-743-2324
  INVESTIGATOR.: JE JENKINS                STATE DEPT OF HELTH/ENV CONT  COLUMBIA                 SC 29201
                 AR ABERNATHY              CLEMSON UNIV                  CLEMSON                  SC 29631
                 WW WATKINS                STATE DEPT OF HELTH/ENV CONT  COLUMBIA                 SC 29201
  MILESTONES...: 01/81 -FINAL PROJECT REPORT
  PROGRAM ID...: (PE-822 )           CONTROL TECH & POINT SOURCE- WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-003300          SSIE-GMA  5309 1      EPA -R803929-02       ORD -RL10830-1079
                 LABN-L611C-034       PE  -822              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  07-01-79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: A SITE IN UPLAND SOUTH CAROLINA WILL BE SELECTED FOR CONSTRUCTION OF AN OVERLAND FLOW SEWAGE
                  TREATMENT SYSTEM WHICH CAN BE OPERATED IN CONJUNCTION WITH A FACULTATIVE LAGOON SO THAT BOTH RAW
                  SEWAGE AND LAGOON EFFLUENT CAN BE APPLIED TO THE LAND. A SYSTEM FOR ABOUT 1,000 PERSONS OR ABOUT
                  100,000 GALLONS OF WASTEWATER PER DAY IS PLANNED. THE CONSTRUCTION WILL BE COMPLETED DURING THE
                  FIRST YEAR. OPERATION OF THE SYSTEM WILL BE CARRIED OUT DURING YEARS TWO AND THREE ALONG WITH
                  SAMPLING AND ANALYSES REQUIRED TO EVALUATE THE FEASIBILITY, RELIABILITY AND EFFICIENCY OF OVERLAND
                  FLOW IN TREATING BOTH TYPES OF WASTEWATERS.
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*PROJECT: 001896-MEASUREMENT OF TROPOSPHERIC AND STRATOSPHERIC TRACE GASES BY GAS
                 CHROMATOGRAPHY
                   TASK =G603A-AF-005 **EPA=R804033     ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/77 - 00/80 :   FY79
  EPA  OFFICER.: PL HANST                   EPA/ESRL - RTP                      FTS 8-629-2998
  INVESTIGATOR.: DR CRONN                   WASHINGTON STATE UNIV               DEPT OF CIVIL & ENV ENGIN
                 RA RASMUSSEN               WASHINGTON STATE UNIV               DEPT OF CIVIL & ENV ENGIN
                 E  ROBINSON                WASHINGTON STATE UNIV               DEPT OF CIVIL & ENV ENGIN
  MILESTONES...: 12/80 -FINAL REPORT
  PROGRAM ID...: (PE-603 )            TRANS. AND FATE -AIR
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-001896          SSIE-GMA  2753 3      EPA -R804033         ORD -RG10830-1079
                 LABN-G603A-AI-004    PE  -603              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  10-01-79
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: THE OBJECTIVE IS TO MAKE MEASUREMENTS OF THE VERTICAL CONCENTRATION DISTRIBUTIONS OF SELECTED TRACE
                  GAS SPECIES IN THE TROPOSPHERE AND LOWER STRATOSPHERE. EMPHASIS WILL BE PLACED ON DETERMINATIONS OF
                  HALOCARBONS AND NON-METHANE HYDROCARBONS. DETERMINATION OF THE CONCENTRATIONS OF THE HALOCARBON
                  SPECIES WILL BE ACCOMPLISHED BY THE METHODS OF ELECTRON CAPTURE - GAS CHROMATOGRAPHY AND GAS
                  CHROMATOGRAPHY-MASS SPECTROMETRY -WHILE GAS CHROMATOGRAPHY WITH FLAME IONIZATION DETECTION WILL BE
                  EMPLOYED FOR THE DETERMINATION OF THE HYDROCARBONS. SAMPLES WILL BE COLLECTED BY AIRCRAFT FLIGHTS
                  IN THE UNITED STATES.

*PROJECT: 001892-MEASUREMENT OF TROPOSPHERIC AND STRATOSPHERIC TRACE GASES BY GAS
                 CHROMATOGRAPHY
                   TASK =G603A-AI-001 **EPA=R804033-03  ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/77 - 04/78 :   FY77
  EPA  OFFICER.: PL HANST                   EPA/ESRL - RTP                      FTS 8-629-2998
  INVESTIGATOR.: DR CRONN                   WASHINGTON STATE UNIV               DEPT OF CIVIL & ENV ENGIN
                 RA RASMUSSEN               WASHINGTON STATE UNIV               DEPT OF CIVIL & ENV ENGIN
                 E  ROBINSON                WASHINGTON STATE UNIV               DEPT OF CIVIL & ENV ENGIN
  MILESTONES...: 02/78 -FINAL REPORT
  PROGRAM ID...: (PE-603 )            TRANS. AND FATE OF POLLUTANTS
  ORDIS CODES..: RECN-001892          SSIE-GMA  4702        EPA -R804033-03      PE  -603
                 LABT-EPE
  PROJ STATUS..: PROJECT-COMPLETED    INFO-ORIGINAL         ENTERED - UNKNOWN    UPDATED-  10-01-76
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: THIS IS ONE OF A MULTI-PART PROJECT WHOSE SUMMARY MAY BE IDENTICAL TO OTHERS. THE OBJECTIVE IS TO
                  MAKE MEASUREMENTS OF THE VERTICAL CONCENTRATION DISTRIBUTIONS OF SELECTED TRACE GAS SPECIES IN THE
                  TROPOSPHERE AND LOWER STRATOSPHERE. EMPHASIS WILL BE PLACED ON DETERMINATIONS OF HALOCARBONS AND
                  NON-METHANE HYDROCARBONS. DETERMINATION OF THE CONCENTRATIONS OF THE HALOCARBON SPECIES WILL BE
                  ACCOMPLISHED BY THE METHODS OF ELECTRON CAPTURE-GAS CHROMATOGRAPHY AND GAS CHROMATOGRAPHY-MASS
                  SPECTROMETRY WHILE GAS CHROMATOGRAPHY WITH FLAME IONIZATION DETECTION WILL BE EMPLOYED FOR THE
                  DETERMINATION OF THE HYDROCARBONS. SAMPLES WILL BE COLLECTED BY AIRCRAFT FLIGHTS IN THE UNITED
                  STATES.
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                                               UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
     REPORT: ORDCONV (VERSION V2.6)              * OFFICE OF RESEARCH AND DEVELOPMENT *
                                                      EPA GRANT PROJECT DESCRIPTIONS
     RUN DATE: 12/05/80                          * O R D I S   D A T A   E X T R A C T *                        PAGE-     3
*PROJECT: 001087-A LONGITUDINAL EVALUATION OF LEAD BODY BURDEN IN GROWING CHILDREN

                  TASK =DC60 -2E0001 **EPA=R804168-03  ** (GRANT)
                  STARTING/ COMPLETION DATE : 05/76 - 06/81 :   FY80
 EPA  OFFICER.: RK MIDAY                  EPA/HERL - CINC
 INVESTIGATOR.: AH LUBIN                  CHILDRENS HOSPITAL                  FTS 8-684-7461
 MILESTONES...: 04/79 -DELIVERY OF ALL MOTHERS ENROLLED                       COLUMBUS                OH 43205
                01/81 -COMPLETION OF 24 MONTH FOLLOW-UP PERIOD
                06/81 -ANALYSIS OF LEAD TRENDS COMPLETED
 PROGRAM ID...: (PE-C60 )          HEALTH EFFECTS  - DRINKING WATER
 FINAL OUTPUT.: ANALYSIS OF LEAD TRENDS
 MANDATE......: 10-15     SAFE DRINKING WATER ACT
 CURR. RESULTS: INITIAL DATA INDICATE CORRELATION BETWEEN LEAD IN
                BLOOD OF MOTHER, CORD BLOCD LEAD, AND NEWBORN
                INFANT LEAD VALUES.  LEAD IN DUST RESULTS CONFIRM
                DUST TO BE SIGNIFICANT SOURCE OF LEAD INTAKE.
 ORDIS CODES..: RECN-001087         SSIE-GWA  5393 2      EPA -R804168-03      ORD -RD10830-1080
                LABN-D614 -017      PE  -C60              LABT-OHR
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 10-01-77   UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS STUDY IS TO ASSESS THE ASSOCIATION OF BIOCHEMICAL NUTRITIONAL AND
                GROWTH PARAMETERS WITH THE AMOUNT OF EXPOSURE OF COMMONLY ACCEPTED SOURCES OF ENVIRONMENTAL LEAD
                (AIR, DUST AND WATER) DURING THE MOTHER'S PREGNANCY AND IN THE OFFSPRING'S SUBSEQUENT FIRST TWO
                YEARS OF LIFE. APPROACH: APPROXIMATELY 200 CHILDREN IN EACH OF THREE CITIES, COLUMBUS, OHIO;
                BOSTON, MASSACHUSETTS; AND NEW BEDFORD, MASSACHUSETTS ARE BEING ENROLLED AND PROSPECTIVELY FOLLOWED
                DURING THE FIRST TWO YEARS OF LIFE, WITH FREQUENT PERSONAL AND ENVIRONMENTAL SAMPLING.
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*PROJECT: 006332-CHEMISTRY AND MODE OF ACTION OF INSECTICIDES

                 TASK -HCB6 -948200 **EPA-R804345     ** (GRANT)
                 STARTING/ COMPLETION DATE : 02/76 - 02/81 :   FY80
 EPA  OFFICER.: RL BARON               EPA/HERL - RTP                   FTS 8-629-2655
 INVESTIGATOR.:    FUKUTO              UNIV OF CALIFORNIA               GRADUATE SCHOOL
 MILESTONES...: 06/81 -METABOLISM OF DERIVATIZED CARBAMATES
                12/79 -MALATHION POTENTIATION STUDIES COMPLETE
                06/80 -ISOMERIC RELATIONSHIPS IN DELAYED NEUROTOXICITY
                06/80 -TOXICITY STUDIES OF OP IMPURITIES
 PROGRAM ID...: (PE-C86 )            HEALTH EFFECTS - PESTICIDES
 FINAL OUTPUT.: XX-80-012-  TALCOTT, RE ; DENK, H; MALLIPUDI, NM;
                MALATHION CARBOXYLESTERASE ACTIVITY IN HUMAN LIVER AND
                ITSINACTIVATION BY ISOMALATHION.
                XX-80-013-  TALCOTT, RE ; MALLIPUDI, NM; UMETSU, N;
                INACTIVATION OF ESTERASES BY IMPURITIES ISOLATED FROM
                TECHNICAL MALATHION.
                XX-80-016-  MALLIPUDI, NM ; FUKUTO, TR;
                TOXICITY OF N-SULFENYLATED DERIVATIVES OF INSECTICIDAL
                SEE PROJECT OFFICER FOR OTHER REPORTS
 MANDATE......: 10-06     FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
 ORDIS CODES..: RECN-006332           SSIE-HZ 809482        EPA -R804345        ORD -RH10B30-1080
                PE  -C86              LABT-OHR
 PROJ STATUS..: PROJECT-ACTIVE        INFO-UPDATED          ENTERED - 10-24-80   UPDATED-  10-24-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC                              PREVIOUS- 06-28-80
 ABSTRACT.....: STUDIES WILL BE PERFORMED ON METABOLISM & MODE OF ACTION OF SELECTED PESTICIDES IN MAMMALIAN MODELS
                 & INVERTEBRATE SPECIES. MODE OF ACTION OF A NEW CLASS OF CARBAMATE INSECTICIDES WILL BE
                 INVESTIGATED. TOXICOLOGICAL STUDIES OF CHIRAL ISOMERS OF ORGANOPHOSPHATE ESTERS &
                 NEUROPHYSIOLOGICAL STUDIES OF OTHER INSECTICIDES WILL BE PERFORMED THE FINAL YEAR OF THIS PROJECT
                 WAS RECENTLY FUNDED. A COMPLETE PROGRESS REPORT OF THE 04 YEAR IS AVAILABLE REVIEWING THE
                 ACCOMPLISHMENTS OF THE PROGRAM TO DATE. TWENTY-FOUR IMPURITIES IN TECHNICAL MALATHION HAVE BEEN
                 ISOLATED AND CHARACTERIZED. THE TOXICOLOGICAL SIGNIFICANCE OF A SERIES OF TRIMETHYL PHOSPHOROUS
                 ESTERS, IMPURITIES IN MALATHION AND OTHER DIMETHYL PHOSPHOROUS INSECTICIDES HAS BEEN EXAMINED.
                 SEVERAL OF THESE AGENTS ARE ACUTELY TOXIC IN THEIR OWN RIGHT, INTERACT WITH THE BIOLOGICAL
                 PROCESSES DEGRADING MALATHION, THEREBY POTENTIATING ITS TOXICITY AND INTERACT WITH EACH OTHER TO
                 INDUCE GREATER OR LESSER TOXICITY. THUS, SOME OF THESE IMPURITIES ARE OF SIGNIFICANCE IN THE
                 OVERALL TOXICOLOGICAL EVALUATION OF THE TECHNICAL PRODUCTS CONTAINING DIMETHYL PHOSPHORUS ESTERS.
                 WITH FENTHION, 23 IMPURITIES HAVE BEEN ISOLATED, MANY OF THE SAME AS WITH MALATHION. WORK ON THE
                 OPTICAL ISOMERS OF SEVERAL ORGANOPHOSPHATES WITH RESPECT TO THEIR DELAYED NEUROTOXICITY IN HENS HAS
                 SHOWN A SPECIFICITY OF ONE OF THE OPTICAL ENANTIOMERS, THE - ISOMER, TO BE THE MORE POTENT
                 PARALYTIC AGENT. THESE RESULTS CONFIRM OTHER DATA OBTAINED WITH EPN. WORK ON THE METABOLIC FATE IN
                 RATS OF A DERIVATIZED CARBAMATE IS COMPLETE. A DERIVATIVE OF CARBOFURAN SHOWING SOME POTENTIAL AS A
                 NEW PESTICIDE AND AS A REPRESENTATIVE OF A NEW CLASS HAS BEEN THOROUGHLY STUDIED IN MAMMALS. A
                 FURTHER DATA BASE IS BEING COMPLETED ON THE METABOLIC FATE IN SOIL AND
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*PROJECT: 006667-URINARY MUTAGENS FROM POPULATIONS EXPOSED TO ENVIRONMENTAL CARCINOGENS

                  TASK -HC1T -988700 **EPA-R804395     ** (GRANT)
                  STARTING/ COMPLETION DATE : 04/76 - 05/80 :   FY80
EPA  OFFICER.: MD WATERS                EPA/HERL - RTP
INVESTIGATOR.:    UNKNOWN               WASHINGTON UNIV                 FTS 8-629-2537
MILESTONES...: 08/77 -REPORT ON MICROSOMAL EFFECT WITH STRAIN TA 1538    ST LOUIS                MO 63130
               01/78 -REPORT ON MUTAGENESIS SCREENING OF URINE
               05/80 -ANALYSIS OF CHEMICAL WORKERS URINE
               05/80 -ANALYSIS OF COKE OVEN WORKERS URINE
               06/80 -FINAL REPORT
PROGRAM ID...: (PE-C1T )             HEALTH EFFECTS  - TOXICS
MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
ORDIS CODES..: RECN-006667           SSIE-HZ 809887       EPA -R804395          QBD-RH10830-1080
               PE  -C1T              LABT-OHR
PROJ STATUS..: PROJECT-COMPLETED     INFO-UPDATED         ENTERED - UNKNOWN     UPDATED-  10-24-80
               CATEGORY-RESEARCH     ACCESS-PUBLIC                              PREVIOUS- 06-28-80
ABSTRACT.....: THE DETECTION OF MUTAGENS IN THE URINE OF WORKERS IN EXCESS OF APPROPRIATE CONTROLS MAY BE
                INDICATIVE OF EXPOSURE TO GENOTOXIC AGENTS. THE IMPLEMENTATION OF METHODOLOGY TO DETECT SUCH
                PHENOMENA IN WORKERS IS A REASONABLE FIRST STEP TO THE APPLICATION OF SIMILAR APPROACHES IN THE
                AMBIENT ENVIRONMENT. THE GRANTEE HAS DEVELOPED TECHNIQUES TO CONCENTRATE URINE AND BIOASSAY
                MUTAGENS USING A MODIFICATION OF THE AMES PROCEDURE. THESE TECHNIQUES ARE TO BE IMPLEMENTED UNDER
                FIELD CONDITIONS AS AN EXTENSION OF THE ORIGINAL GRANT. URINE SAMPLES FROM 24 COKE OVEN WORKERS
                WERE COLLECTED FROM A LARGE STEEL MILL IN INDIANA. SIX OF THE SUBJECTS WERE NONSMOKERS AND THE REST
                SMOKERS. SAMPLES WERE ANALYZED USING THE PREVIOUSLY REPORTED METHYLENE CHLORIDE AND ACETONE METHOD
                OF EXTRACTION FROM XAD-2 RESIN COLUMNS. URINE EXTRACTS WERE TESTED ON STRAINS TA100 AND TA1538 WITH
                AND WITHOUT S-9. RESULTS OF THIS SMALL SAMPLING MUST BE CONSIDERED PRELIMINARY, HOWEVER, THE
                FOLLOWING FINDINGS ARE NOTEWORTHY, 1) MUTAGENIC ACTIVITY ON STRAINS TA100 WITH S-9 OF THE SIX
                NONSMOKERS' URINES WAS HIGHER THAN THAT FROM 21 NONSMOKER CONTROL URINES FROM OFFICE AND LABORATORY
                WORKERS. THE DIFFERENCE WAS STATISTICALLY SIGNIFICANT IN A CONTINGENCY TABLE ANALYSIS WITH 5 LEVELS
                OF MUTAGENIC ACTIVITY AT P LESS THAN .05. 2) URINES FROM 12 COKE OVEN WORKERS AND 11 CONTROLS WERE
                TESTED ON STRAIN TA100 WITHOUT S-9. THE MEAN ACTIVITY FROM THE WORKERS' URINES WAS ROUGHLY SIX
                TIMES HIGHER THAN THAT FROM THE CONTROLS. MUCH OF THE DIFFERENCE BETWEEN THE TWO SAMPLES WAS DUE TO
                TWO COKE OVEN WORKERS WITH VERY HIGH ACTIVITY, AND SO THE DATA ARE NOT AMENABLE TO STATISTICAL
                ANALYSIS. 3) PRELIMINARY DATA INDICATE THAT COKE OVEN WORKERS IN JOBS WITH PROBABLE HIGH EXPOSURE
                TO COKE OVEN EMISSIONS HAVE HIGHER URINARY MUTAGEN LEVELS THAN THOSE WITH PROBABLE LOW EXPOSURE TO
                COKE OVEN EMISSIONS. THESE PRELIMINARY RESULTS SUGGEST THAT COKE OVEN WORKERS MAY HAVE DETECTABLE
                LEVELS OF URINARY MUTAGENS ABOVE THOSE OBSERVABLE IN A NON-INDUSTRIALLY EXPOSED POPULATION. FURTHER
                SAMPLINGS, HOWEVER, ARE NEEDED TO INCREASE THE SAMPLE SIZE TO ONE LARGE ENOUGH TO SUPPORT MORE FIRM
                CONCLUSIONS. WE ARE CURRENTLY ATTEMPTING TO GET MORE SAMPLES FROM THIS MILL, AND TO ARRANGE
                SAMPLING AT TWO MORE.
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*PROJECT: 002629-STUDIES TO IMPROVE THE RELIABILITY AND SENSITIVITY OF BACTERIAL
                 MUTAGENESIS AS A SOURCE FOR ENVIRONMENTAL CARCINOGENS
                   TASK =H615A-008977 **EPA=R804395-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/76 - 04/79 :   FY78
  EPA  OFFICER.: MD WATERS              EPA/HERL - RTP                  FTS 8-629-2537
  INVESTIGATOR.: B  COMMONER            WASHINGTON UNIV                 CTR FOR NATURAL SYS
                 A  VITHAYATHIL         WASHINGTON UNIV                 CTR FOR NATURAL SYS
                 M  KOMERYNSKY          WASHINGTON UNIV                 CTR FOR NATURAL SYS
                 S  NAIR                WASHINGTON UNIV                 CTR FOR NATURAL SYS
  MILESTONES...: 06/77 -REPORT ON THE LIQUID SUSPENSION SYSTEM
                 08/77 -REPORT ON MICROSOMAL EFFECT WITH STRAIN TA1528
                 01/78 -REPORT ON CUTANESIS SCREENING OF URINE
                 10/78 -REPORT ON ISOLATION AND PURIFICATION OF BEEF EXTRACT MUTAGEN
  PROGRAM ID...: (PE-615 )          HEALTH EFFECTS- PESTICIDES
  MANDATE......: 10-06     FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                 30-99     MICROBIAL MUTAGENESIS
  ORDIS CODES..: RECN-002629          SSIE-GMA  5475        EPA -R804395-02       ORD -RH10B30-5078
                 PE  -615             LABT-OHR
  PROJ STATUS..: PROJECT-COMPLETED    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  10-01-77
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: THIS RESEARCH PROGRAM IS DESIGNED TO IMPROVE THE RELIABILITY AND SENSITIVITY OF THE AMES
                  BACTERIAL MUTAGENESIS TECHNIQUE AS A SCREEN FOR THE DETECTION OF ENVIRONMENTAL CARCINOGENS. IN
                  ORDER TO ACHIEVE THIS OBJECTIVE THE RESEARCH IS CONCENTRATING ON ELUCIDATING THE MECHANISM OF
                  MICROSOMAL ACTIVATION WHICH OCCURS IN THIS TECHNIQUE AND ON IMPROVING THE SPECIFICITY OF THIS
                  PROCESS. APPROACH: THE BASIC APPROACH EMPLOYED IN THIS RESEARCH PROGRAM IS TO ANALYZE THE
                  BIOCHEMICAL MECHANISM INVOLVED IN MICROSOMAL ACTIVATION. CURRENT PLANS: CURRENT RESEARCH PLANS ARE
                  DESIGNED TO ELUCIDATE FURTHER THE RECENT DISCOVERY THAT MICROSOME PREPARATIONS ARE THEMSELVES
                  CAPABLE OF INDUCING A SIGNIFICANT INCREASE IN THE MUTATION RATES OF TWO STRAINS OF SALMONELLA,
                  TA-1538 AND TA-98. SPECIFICALLY, IT IS PLANNED TO DESCRIBE THE BIOCHEMICAL PROCESSES CARRIED OUT BY
                  THE MICROSOMES THAT MEDIATE THIS EFFECT AND THE SUBSTANCES IN THE BACTERIAL CELLS THAT ARE ACTED
                  UPON.
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*PROJECT: 002811-STUDIES TO IMPROVE THE RELIABILITY AND SENSITIVITY OF BACTERIAL
                 MUTAGENESIS AS A SCREEN FOR ENVIRONMENTAL CARCINOGENS
                   TASK =H629A-007911 **EPA=R804395-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/76 - 04/79 :   FY78
  EPA  OFFICER.: WD WATERS                  EPA/HERL - RTP
  INVESTIGATOR.: B  COMMONER                WASHINGTON UNIV                     FTS 8-629-2537
                 A  VITHAYATHIL             WASHINGTON UNIV                     CTR FOR NATURAL SYS
                 M  KOMERYNSKY              WASHINGTON UNIV                     CTR FOR NATURAL SYS
                 S  NAIR                    WASHINGTON UNIV                     CTR FOR NATURAL SYS
  MILESTONES...: 06/77 -REPORT ON THE LIQUID SUSPENSION SYSTEM                  CTR FOR NATURAL SYS
                 08/77 -REPORT ON MICROSOMAL EFFECT WITH STRAIN TA1528
                 01/78 -REPORT ON MUTAGENESIS SCREENING OF URINE
                 10/78 -REPORT ON ISOLATION AND PURIFICATION OF BEEF EXTRACT MUTAGEN
  PROGRAM ID...: (PE-629 )           HEALTH EFFECTS -TOXIC SUBSTANCES
  MANDATE......: 10-06      FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                 30-99      MICROBIAL MUTAGENESIS
  ORDIS CODES..: RECN-002811          SSIE-GMA  4282 1      EPA -R804395-02       ORD -RH10830-5078
                 LABN-H629A-8911      PE  -629              LABT-OHR
  PROJ STATUS..: PROJECT-COMPLETED    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  10-01-77
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: THE PROPOSED PROGRAM OF RESEARCH IS DESIGNED TO IMPROVE THE RELIABILITY AND SENSITIVITY
                  OF THE BACTERIAL MUTAGENESIS TECHNIQUES AS A SCREEN FOR THE DETECTION OF ENVIRONMENTAL CARCINOGENS.
                  IN ORDER TO ACHIEVE THIS OBJECTIVE THE RESEARCH IS CONCENTRATING ON ELUCIDATING THE MECHANISM OF
                  MICROSOMAL ACTIVATION WHICH OCCURS IN THIS TECHNIQUE AND OF IMPROVING THE SPECIFICITY OF THIS
                  PROCESS. APPROACH: THE BASIC APPROACH EMPLOYED IN THIS RESEARCH PROGRAM IS TO ANALYZE THE
                  BIOCHEMICAL MECHANISMS INVOLVED IN MICROSOMAL ACTIVATION. CURRENT PLANS: CURRENT RESEARCH PLANS ARE
                  DESIGNED TO ELUCIDATE FURTHER OUR RECENT DISCOVERY THAT MICROSOME PREPARATIONS ARE THEMSELVES
                  CAPABLE OF INDUCING A SIGNIFICANT INCREASE IN THE MUTATION RATES OF TWO STRAINS OF SALMONELLA,
                  TA-1533 AND TA-98. SPECIFICALLY, WE PLAN TO DESCRIBE THE BIOCHEMICAL PROCESSES CARRIED OUT BY THE
                  MICROSOMES THAT MEDIATE THIS EFFECT AND THE SUBSTANCES IN THE BACTERIAL CELLS THAT ARE ACTED UPON.

*PROJECT: 005691-GROUNDWATER INJECTION OF RECLAIMED WATER IN PALO ALTO

                   TASK =DC60 -4D0002 **EPA=R804431      ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/78 - 01/80 :   FY80
  EPA  OFFICER.: HR PAHREN                  EPA/HERL - CINC
  INVESTIGATOR.: RC COOPER                  UNIV OF CALIFORNIA                  FTS 8-684-7217
  MILESTONES...: 01/80 -MUTAGENESIS EVALUATION                                  DEPT OF BIOMED & ENV HLTH
  PROGRAM ID...: (PE-C60 )            HEALTH EFFECTS  - DRINKING WATER
  FINAL OUTPUT.: MUTAGENESIS EVALUATION
  MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005691          SSIE-GMA  6682        EPA -R804431          ORD -RD10830-1080
                 PE  -C60             LABT-OHR
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: EVALUATE MUTAGENICITY AND REMOVAL OF SAME IN TREATMENT SYSTEMS USED TO RENOVATE
                  WASTEWATERS. APPROACH: AMES TEST FOR MUTAGENICITY.
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*PROJECT: 003337-GROUND WATER INJECTION OF RECLAIMED WATER IN PALO ALTO

                 TASK =LC61 -000008 **EPA=R804431     ** (GRANT)
                 STARTING/ COMPLETION DATE : 04/76 - 12/80 :   FY80
  EPA  OFFICER.: MR SCALF                   EPA/ERL - ADA                        FTS-8-743-2308
  INVESTIGATOR.: PL MCCARTY                 STANFORD UNIV                        CIV ENG DEPT
  MILESTONES...: 05/77 -INTERIM REPORT
                 05/78 -INTERIM REPORT
                 10/79 -INTERIM REPORT
                 12/80 -FINAL REPORT
  PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
  FINAL OUTPUT.: FINAL REPORT
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  CURR. RESULTS: PROPOSAL FOR THIRD YEAR OF PROJECT REVIEWED AND RECOMMENDED
                 FOR FUNDING.A 4TH. YEAR OF THE PROJECT WAS FUNDED ON 12/1/ 9
                 TO CONTINUE FIELD MONITORING NEAR ONE OF THE INJECTION WELLS
                 AND TO CONTINUE LAB. STUDIES OF THE KINECTICS OF ADSORPTION
                 AND BIODEGRADATION OF ORGANICS IN GROUND WATER SYSTEMS
  ORDIS CODES..: RECN-003337          SSIE-GWA  2804 4      EPA -R804431        ORD -RL10830-1080
                 LABN-L614-01         PE  -C61              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: RECLAIMED MUNICIPAL WASTEWATER IS BEING INJECTED INTO A CONFINED AQUIFER TO RECHARGE THE
                  GROUND WATER SUPPLY AS WELL AS TO REPEL SALTWATER INTRUSION. IN THIS PROJECT, THE WATER QUALITY
                  CHANGES THAT OCCUR AS THE WATER PASSES THROUGH THE GROUND ARE BEING EVALUATED WITH SPECIAL EMPHASIS
                  ON THE TRANSPORT OF ORGANIC TRACE CONTAMINANTS AND VIRUSES. APPROACH: THE EFFECTIVENESS OF THE
                  AQUIFER IN ATTENUATING THE MOVEMENT OF CONTAMINANTS IS BEING INVESTIGATED AND THE FIELD CAPACITY
                  FOR REMOVAL IS ESTIMATED. LABORATORY STUDIES OF ADSORPTION, BIODEGRADATION, ION EXCHANGE, AND
                  OXIDATION-REDUCTION PHENOMENA ARE BEING CONDUCTED TO EXPLAIN THE WATER QUALITY CHANGES OBSERVED IN
                  THE FIELD. THE POTENTIAL FOR PRECIPITATION REACTIONS IS PREDICTED BY USING COMPUTER MODELS OF THE
                  CHEMICAL EQUILIBRIA. A COMPUTER MODEL HAS BEEN DEVELOPED FOR SIMULATING FLOW AND WATER QUALITY
                  CHANGES IN THE AQUIFER. THE ULTIMATE GOAL IS TO ASSESS THE FEASIBILITY OF REUSING THE EXTRACTED
                  GROUNDWATER IN POTABLE WATER SUPPLIES.
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*PROJECT: 000943-DEVELOPMENT OF SAFE METHODS FOR DISPOSAL OF EXCESS PESTICIDES USED BY
                 AGRICULTURAL AND COMMERCIAL APPLICATORS
                   TASK =CC73 -04T009 **EPA=R804533-03  ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/76 - 02/80 :   FY80
  EPA  OFFICER.: CJ ROGERS                 EPA/MERL - CINC                 FTS 8-684-7881
  INVESTIGATOR.: CJ HALL                   IOWA STATE UNIV                 DEPT. OF HORTICULTURE
  MILESTONES...: 06/79 -COMPLETION OF VOLATILIZATION STUDIES
                 06/79 -COMPLETION OF BIOASSAYS STUDIES
                 09/79 -COMPLETION OF INVESTIGATION ON NEWLY CONSTRUCTED DISPOSAL PIT
                 02/80 -FINAL REPORT
  PROGRAM ID...: (PE-C73 )            SOLID & HAZARDOUS WASTE
  MANDATE......: 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 20-14     DAA FOR SOLID WASTE
  CURR. RESULTS: SAFE AND EFFECTIVE DISPOSAL OF EXCESS PESTICIDES
                 DEMONSTRATED.  IN PROCESS OF INITIATING JOINT EPA/USDA
                 PIT DISPOSAL DEMONSTRATION PROJECT.
                 DEMONSTRATION PROJECT TERMINATED 7/79.  FINAL REPORT
                 DUE 2/80.
  ORDIS CODES..: RECN-000943           SSIE-GMA  3470 3      EPA -R804533-03       ORD -RC10830-5080
                 LABN-C618A-7205       PE  -C73              LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: (1) EVALUATE OVERALL EFFECTIVENESS OF THE DISPOSAL PITS CURRENTLY IN USE BASED ON
                  MATERIALS PREVIOUSLY DEPOSITED IN EACH; (2) DETERMINE PRESENCE OR ABSENCE OF ENVIRONMENTALLY
                  HAZARDOUS COMPOUNDS IN EACH; (3) CONTINUE TO SAMPLE EACH PIT DURING TENURE OF STUDY; (4) ESTABLISH
                  EXPERIMENTAL SYSTEMS FOR STUDYING THE FATE OF SELECTED PESTICIDES IN ISOLATED MICRO-PITS UNDER
                  CONTROLLED CONDITIONS; (5) EVALUATE BIOLOGICAL ACTIVITY IN PRESENT SYSTEMS; (6) DEVELOP PLANS AND
                  SPECIFICATIONS FOR DISPOSAL SYSTEM CONSTRUCTION AND MANAGEMENT. APPROACH: CONDUCT A 5-YEAR CHEMICAL
                  AND BIOLOGICAL STUDY OF TWO EXISTING PESTICIDE DISPOSAL SYSTEMS USED AT THE AGRONOMY-AG.
                  ENGINEERING AND HORTICULTURE STATIONS WHICH HAVE BEEN IN USE 10 AND 5 YEARS, RESPECTIVELY.
                  ADDITIONAL CONTROLLED MICRO-DISPOSAL SYSTEMS WILL BE ESTABLISHED TO DETERMINE THE FATE AND
                  BIOLOGICAL CONSEQUENCES OF KNOWN QUANTITIES OF SELECTED DISPOSED COMPOUNDS. ACCURATE DATA WILL BE
                  COLLECTED ON IDENTITY, QUALITY AND CONCENTRATION OF UNUSUAL DILUTE INSECTICIDES, FUNGICIDES, AND
                  HERBICIDES DEPOSITED IN EXISTING AND TWO NEW DISPOSAL PITS. RELIABLE RECOMMENDATIONS FOR DISPOSAL
                  SYSTEMS FOR FARMS AND COMMERCIAL APPLICATION SHOULD BE DEVELOPED AS A RESULT OF THE STUDY.
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*PROJECT: 001249-CASE-CONTROL STUDY OF WATER QUALITY AND CARCINOGENESIS IN PENNSYLVANIA

                  TASK =DC60 -1C0003 **EPA=R804594-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 11/76 - 02/81 :   FY80
  EPA  OFFICER.: DG GREATHOUSE             EPA/HERL - CINC                  FTS 8-684-7368
  INVESTIGATOR.: AK BAHN                   UNIV OF PENNSYLVANIA             DEPT. OF COMM MEDICINE
                 J  KEENAN                 UNIV OF PENNSYLVANIA             DEPT. OF COMM MEDICINE
  MILESTONES...: 04/80 -FINAL REPORT
  PROGRAM ID...: (PE-C60 )             HEALTH EFFECTS  - DRINKING WATER
  MANDATE......: 20-13     DAA FOR DRINKING WATER
                 20-R03    EPA REGION III
  CURR. RESULTS: MOST OF FIELD WORK COMPLETED AND RESULTANT DATA IS
                 BEING PREPARED FOR STATISTICAL ANALYSES.
  ORDIS CODES..: RECN-001249          SSIE-GMA  4524 3      EPA -R804594-01       ORD -RD10830-2080
                 PE  -C60             LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 06-28-80    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: ONE OF THE MAJOR AIMS OF THE PROJECT IS TO DEVISE, DEVELOP, AND EVALUATE METHODS FOR
                  EVALUATING POSSIBLE LINKS BETWEEN COLON CANCER AND SUBSTANCES IN DRINKING WATER. APPROACH:
                  ALTERNATIVE METHODOLOGIC APPROACHES WILL BE EMPLOYED TO ACQUIRE THE NECESSARY DATA FOR ESTIMATION
                  OF COLON CANCER RISKS ASSOCIATED WITH ORGANICS IN DRINKING WATER. THE MERITS OF EACH METHOD WILL BE
                  ASSESSED AND EVALUATED IN TERMS OF COSTS OF IMPLEMENTATION AND SUCCESS IN EVALUATION OF RISKS.
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*PROJECT: 000194-MICROWAVE SYSTEM TO PREVENT HAZARDOUS MATERIAL DIKE FAILURES

                  TASK =BC33 -000192 **EPA=R804763-03  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/76 - 01/82 :   FY80
 EPA  OFFICER.: JE BRUGGER               EPA/IERL - CINC                  FTS-8-340-6634
 INVESTIGATOR.: RM KOERNER               DREXEL UNIV                      PHILADELPHIA            PA 19104
                AE LORD                  DREXEL UNIV                      PHILADELPHIA            PA 19104
 MILESTONES...: 10/81 -COMPLETE PROJECT
                01/82 -FINAL REPORT RECEIVED
 PROGRAM ID...: (PE-C33 )           INDUSTRIAL PROCESSES
 FINAL OUTPUT.: MOBILE MICROWAVE UNIT TO DETERMINE UNDERGROUND
                WATER, IRREG., & DISCONTINUITIES IN EARTHEN DIKES.
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                20-99     DOSMC, OW&HM,DC
 CURR. RESULTS: FIELD STUDIES OF CONTINUOUS WAVE MICROWAVE MONITORING
                SYSTEM CONDUCTED ALONG WITH STANDARD RESISTIVITY AND
                SEISMIC TESTING METHODS. RESULTS INDICATE THAT EACH METHOD
                HAS A RANGE OF OPTIMUM USES. THUS, TO OBTAIN THE MOST
                COMPLETE SUBSURFACE INFORMATION, USE OF A COMBINATION OF
                GEOPHYSICAL METHODS IS RECOMMENDED.
 ORDIS CODES..: RECN-000194          SSIE-GMA  3609 4      EPA -R804763-03       ORD -RB10B30-1080
                PE  -C33             LABT-EET
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-77    UPDATED-  10-24-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 06-28-80
 ABSTRACT.....: THE DETECTION AND LOCATION OF WATER LEVELS, WATER POCKETS, VOIDS AND VARIOUS OTHER DISCONTINUITIES
                 BETWEEN DIFFERENT LAYERS OF EARTH OR ROCK IS CRITICAL IN INSURING THE PERFORMANCE AND SAFETY OF
                 EARTH DAMS. SUCH UNDERGROUND ANOMALIES ARE PARTICULARLY UNDESIRABLE IN THE EARTH DAMS AND DIKES
                 THAT CONTAIN HAZARDOUS MATERIALS SINCE THESE RELATIVELY SMALL EMBANKMENTS ARE GENERALLY NOT
                 ENGINEERED OR CONSTRUCTED IN A RIGOROUS AND PROFESSIONAL MANNER. ONE POSSIBLE TECHNIQUE FOR
                 DETECTING AND MONITORING SUCH FAULTS AND WEAK AREAS IS THE USE OF MICROWAVES. BY BEAMING CONTINUOUS
                 OR PULSED MICROWAVES AT THE DIKE AND RECORDING THE RETURN SIGNAL AS IT IS REFLECTED FROM THE
                 ANOMALY, THE LOCATION, TYPE AND DEPTH OF FAULTS CAN BE DETERMINED. A LITERATURE SEARCH (TECHNICAL,
                 EQUIPMENT, LEGAL AND SAFETY) WILL BE UNDERTAKEN AND A NUMBER OF LABORATORY EXPERIMENTS WILL BE
                 PERFORMED TO ASSESS THE PRACTICALITY OF USING MICROWAVES FOR THE NON-DESTRUCTIVE ASSESSMENT OF DIKE
                 STABILITY. BASIC SOIL PROPERTIES SUCH AS DIELECTRIC CONSTANT, CONDUCTIVITY, ATTENUATION, PHASE
                 SHIFT, AND VELOCITY WILL ALSO BE DETERMINED. THE FINAL RESULT OF THIS PROJECT WILL BE AN
                 INEXPENSIVE, MOBILE, MICROWAVE UNIT (WITH KNOWN LIMITATIONS) TO DETERMINE UNDERGROUND WATER,
                 IRREGULARITIES, AND DISCONTINUITIES IN SMALL EARTHEN DIKES.
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*PROJECT: 000784-PREVENTION OF FORMATION AND/OR REMOVAL OF HALOGENATED ORGANICS USING
                 CHLORINE DIOXIDE AND GRANULAR CARBON
                   TASK =CC61 -01T043 **EPA=R804902-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 11/76 - 03/81 :   FY80
                                                                          FTS 8-684-7209
  EPA  OFFICER.: B  LYKINS                 EPA/MERL - CINC                                       IN 47740
  INVESTIGATOR.: DB MILLS                  EVANSVILLE CITY GOVERNMENT     EVANSVILLE             IN 47740
                 M  GRIESE                 EVANSVILLE CITY GOVERNMENT     EVANSVILLE
  PROGRAM ID...: (PE-C61 )            DRINK WATER TREATMENT & GROUND WATER PROT
  MANDATE......: 10-09     REORGANIZATION PLAN # 3
                 10-03     TOXIC SUBSTANCES CONTROL ACT
                 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
  CURR. RESULTS: PHASE I COMPLETED WITH PHASE II CONTINUING.
  ORDIS CODES..: RECN-000784          SSIE-GMA  3597 3       EPA -R804902-01      ORD -RC10830-1080
                 LABN-C614A-0059      PE  -C61               LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED           ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: A 100 GPM PILOT PLANT WILL BE USED TO EVALUATE VARIOUS TREATMENT SCHEMES USING CHLORINE
                 AND CHLORINE DIOXIDE DISINFECTION TO COMPARE RESULTANT TRIHALOMETHANE AND OTHER ORGANIC BY-PRODUCT
                 FORMATION. REMOVAL EFFICIENCIES BY GRANULAR ACTIVATED CARBON CONTACTORS OF ORGANIC COMPOUNDS
                 EXISTING IN THE RAW WATER SUPPLY OR FORMED DURING DISINFECTION WILL ALSO BE EVALUATED. APPROACH:
                 THE PROJECT IS DIVIDED INTO TWO PHASES. PHASE 1 (OPTIMIZATION PHASE) CONSISTS OF FOUR SHORT-TERM
                 (2-3 WK) RUNS USING EITHER CHLORINE OR CHLORINE DIOXIDE DISINFECTION IN CONJUNCTION WITH GRANULAR
                 ACTIVATED CARBON TO SELECT A MODE OF OPERATION FOR LONG-TERM (21 MONTH) EVALUATION. PHASE 2
                 (OPERATING PHASE) WILL EVALUATE CHLORINE DIOXIDE USING VIRGIN AND SUBSEQUENT REGENERATED GRANULAR
                 ACTIVATED CARBON.
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*PROJECT: 004390-ANALYSIS OF BIOLOGICAL TREATMENT PLANT PERFORMANCE RELIABILITY &
                 STABILITY
                   TASK =CC36 -02TC01 **EPA=R805097-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 02/77 - 10/81 :   FY80
  EPA  OFFICER.: JH BENDER                 EPA/MERL - CINC                    FTS-8-684-7607
  INVESTIGATOR.: ED SCHROEDER              UNIV OF CALIFORNIA                 DEPT OF CIVIL ENGIN
  MILESTONES...: 10/79 -TOXICS WORK COMPLETED
                 08/80 -FINAL REPORT ON VARIABILITY ANALYSIS PUBLISHED
                 10/80 -FINAL REPORT ON TOXICS WORK COMPLETED
                 10/81 -FINAL REPORT PUBLISHED
  PROGRAM ID...: (PE-C36 )           URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  FINAL OUTPUT.: RELATIONSHIP BETWEEN PROCESS DESIGN AND OPERATION &
                 COEFFICIENT OF VARIATION.
                 AT A STATIONARY SOURCE FACILITY ALSO SERVES AS A BASIC
                 TOOL FOR CONTINUOUS SOURCE MONITORING ENABLING THE READER
                 TO REFER TO ORGINAL RESEARCH AND DEV. WORK FOR THE
                 INITATION OF A CONTINUOUS MONITORING PROGRAM.
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  CURR. RESULTS: VARIABILITY ANALYSIS AND STABILITY/RELIABILITY MODEL
                 COMPLETED AND FINAL REPORT IN PREPARATION.  EVALUATION
                 OF SELECTED TOXICS OR TREATMENT PLANT STABILITY/
                 RELIABILITY CONTINUING.DRAFT FINAL REPORT ON RELIABILITY
                 STABILITY RECEIVED
  ORDIS CODES..: RECN-004390           SSIE-GMA  5583 1      EPA -R805097-01       ORD -RC10B30-1079
                 LABN-C611B-074        PE  -C36              LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC                               PREVIOUS- 01-01-80
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT ARE TO COLLECT FIELD PERFORMANCE DATA FROM APPROXIMATELY
                  100 ACTIVATED SLUDGE AND 100 TRICKLING FILTER PROCESSES AND TO DETERMINE THE STATISTICAL
                  DISTRIBUTION OF EFFLUENT QUALITY VALUES AROUND THE ANNUAL MEAN PARAMETER VALUES, RELATIONSHIPS
                  BETWEEN EFFLUENT QUALITY AND TEMPERATURE, FLOW RATE AND DESIGN CAPACITY. QUALITY PARAMETERS
                  EVALUATED WILL INCLUDE BOD, COD AND SUSPENDED SOLIDS CONCENTRATION. APPROACH: DAILY COMPOSITE
                  SAMPLE VALUES FOR A ONE-YEAR PERIOD WILL BE USED IN THE STUDY. FINAL OUTPUT WILL PRESENT
                  RELATIONSHIP BETWEEN PROCESS DESIGN AND OPERATION AND COEFFICIENT OF VARIATION. COEFFICIENT OF
                  VARIATION IS THEN DIRECTLY RELATED TO A SPECIFIC LEVEL OF PERFORMANCE AND RELIABILITY. THE IMPACT
                  OF TOXIC ORGANICS ON THE STABILITY/RELIABILITY OF BENCH SCALE ACTIVATED SLUDGE UNITS WILL BE
                  EVALUATED. THIS PROJECT IS AN EXTENSION OF A SMALLER PROJECT USING DATA FROM 28 ACTIVATED SLUDGE
                  PLANTS VARYING IN SIZE FROM 0.6 TO 300 MGD. THE PREVIOUS WORK WAS FUNDED BY U. CALIFORNIA WATER
                  RESOURCES CTR. AND USDI OWRR AS B-173-CAL.
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                                UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
     REPORT: ORDCONV (VERSION V2.6)     * OFFICE OF RESEARCH AND DEVELOPMENT *
                                              EPA GRANT PROJECT DESCRIPTIONS                            PAGE-    14
     RUN DATE: 12/05/80                 * O R D I S   D A T A   E X T R A C T *

*PROJECT: 001090-WATER SOURCE AND CHARACTERISTICS AND MALIGNANCY RATES OF SELECTED SITES
                 IN SELECTED PARISHES IN LOUISIANA
                  TASK =D614 -029A00 **EPA=R805110-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/78 - 08/79 :    FY78
                                              EPA/HERL - CINC                FTS 8-496-4947
  EPA  OFFICER.: KP CANTOR                    TULANE UNIV OF LOUISIANA       SCH OF MED/EPIDEM DEPT
  INVESTIGATOR.: MS GOTTLIEB                  TULANE UNIV OF LOUISIANA       SCH OF MED/EPIDEM DEPT
                 FJ MATHER
  MILESTONES...: 12/79 -REPORT ON BLADDER CANAL & WATER SUPPLIES
  PROGRAM ID...: (PE-614 )          DRINKING WATER
  MANDATE......: 10-13     SOLID WASTE DISPOSAL ACT
  ORDIS CODES..: RECN-001090        SSIE-GHA  5398      EPA -R805110-02      ORD -RD10A30-1078
                 PE  -614           LABT-OHR
  PROJ STATUS..: PROJECT-ACTIVE     INFO-ORIGINAL       ENTERED - 10-01-77   UPDATED-  10-01-77
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: TO EXAMINE THE POSSIBLE RELATIONSHIP OF THE SOURCE OF DRINKING WATER IN SELECTED LOUISIANA PARISHES
                  TO THE OCCURRENCE OF CANCER OF SITES WHICH APPEAR TO BE SIGNIFICANTLY ELEVATED AND PARTICULARLY FOR
                  CANCER OF THE PANCREAS, STOMACH, BLADDER, LUNG AND COLON CANCER, EXCLUDING RECTUM. PARISHES HAVE
                  BEEN SELECTED BY SOURCE OF DRINKING WATER AND OTHER ENVIRONMENTAL CHARACTERISTICS. TO DATE RELATED
                  STUDIES HAVE PRIMARILY CONCERNED THEMSELVES WITH MORTALITY DATA. MORTALITY DATA DOES NOT
                  DISTINGUISH BETWEEN INCIDENCE AND PREVALENCE. THIS IS PARTICULARLY CRITICAL WHEN LOOKING FOR
                  ETIOLOGY OF CANCERS WITH LONG SURVIVAL FROM TIME OF DIAGNOSIS, I.E., BLADDER AND LARGE INTESTINE
                  (COLON). IN THE FIRST PHASE MORTALITY RATES FOR THE SELECTED MALIGNANCIES WILL BE COMPARED FOR
                  THREE TIME PERIODS FOR THE SELECTED PARISHES. THIS PROJECT WILL SYSTEMATICALLY USE MORTALITY DATA
                  TO MEASURE INCIDENCE WHERE APPLICABLE (CANCER OF THE LUNG, PANCREAS AND STOMACH). ALSO, BY
                  COMPARING SELECTED HOSPITAL DATA FOR CANCERS WITH SHORT SURVIVALS DETERMINE THE REPRESENTATIVENESS
                  OF THE HOSPITAL DATA OF THE TOTAL MORTALITY AND DETERMINE THE USEFULNESS OF INCIDENCE DATA (DATE OF
                  DIAGNOSIS) FROM THESE HOSPITALS FOR CANCERS OF THE LARGE INTESTINE AND BLADDER. THE NULL HYPOTHESIS
                  IS THAT DRINKING WATER SOURCE HAS NOTHING TO DO WITH CANCER RATES. ORLEANS PARISH IS ONE OF THE
                  PARISHES THAT WILL BE CONSIDERED. OTHER VARIABLES THAT WILL THEN BE EXAMINED TO LOOK AT DIFFERENCES
                  IN RATES NOT ATTRIBUTABLE TO DRINKING WATER ARE THE PRESENCE OF PARTICULAR INDUSTRIES, AND THE
                  PROXIMITY OF THE RESIDENCE OF THE CASES TO THE INDUSTRY, AS WELL AS PARTICULAR OCCUPATIONS.
                  MORTALITY OR INCIDENCE RATES FOR THE SPECIFIC SUBGROUPS WILL BE CALCULATED AND COMPARED TO EXPECTED
                  NUMBERS (EXPECTED DEATHS BASED ON AGE-TIME SPECIFIC DEATH RATES FOR LOUISIANA RESIDENTS, AND
                  INCIDENCE RATES BASED ON THE NATIONAL CANCER INCIDENCE SURVEYS MOST APPROPRIATE TO THE PARTICULAR
                  YEARS BEING CONSIDERED). STANDARDIZED RATIOS WILL BE CALCULATED IN ORDER TO COMPARE GROUPS AND
                  SUB-GROUPS.
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*PROJECT: 000939-HIGH-TEMPERATURE DEGRADATION CHARACTERISTICS OF HAZARDOUS ORGANIC WASTES
                - A LABORATORY APPROACH
                 TASK *CC73 -S4T018 **EPA*R805117-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 06/77 - 12/80 :   FY80
  EPA  OFFICER.: RA CARNES                  EPA/MERL - CINC                FTS-8-684-7871
  INVESTIGATOR.: DS DUVALL                  UNIV OF DAYTON                 RES INST
  MILESTONES...: 06/79 -ANNUAL REPORT (PROGRESS)
                 06/80 -FINAL REPORT (DRAFT)
                 12/80 -PUBLISH FINAL REPORT
  PROGRAM ID...: (PE-C73 )           SOLID & HAZARDOUS WASTE
  MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
                 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 10-06     FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                 20-14     DAA FOR SOLID WASTE
  CURR. RESULTS: DURING PAST 2 YRS ACTIVE RESEARCH GRANTEE DEVELOPED VERY
                 SOPHISTICATED LAB PROCEDURE FOR THERMAL DECOMPOSITION
                 OF HAZARDOUS WASTES.  THERMAL DECOMPOSITION CHARACTERISTICS
                 AND DESTRUCTION REQUIREMENTS DETERMINED FOR KEPONE, MIREX,
                 ENDRIN, PCB AND PBB.  ENGINEERING REPORT RECEIVED
                 PROJECT ON LINE DESIGN REPORT SUBMITTED BY GRANTEE ENTITLED
                 "DESIGN FOR A THERMAL DECOMPOSITION ANALYTECAL SYSTEM "
                 DESIGN REPORT PUBLISHED.  TECH REPORT IN PROCESS.
  ORDIS CODES..: RECN-000939        SSIE-GMA  3944 3     EPA -R805117-01      ORD -RC10830-5080
                 LABN-C618A-7042    PE   -C73            LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC                             PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THE PRIME OBJECTIVE OF THIS STUDY IS TO DETERMINE THE THERMAL DESTRUCTION CHARACTERISTICS
                  OF A WIDE ASSORTMENT OF PESTICIDES AND OTHER ORGANIC HAZARDOUS WASTE MATERIALS. APPROACH: THE
                  OBJECTIVE WILL BE ACCOMPLISHED USING A SPECIALLY DESIGNED LABORATORY TEST SYSTEM CAPABLE OF
                  DETERMINING DESTRUCTION-RESIDENCE TIME DATA FOR A MULTITUDE OF ORGANIC SAMPLES, WHILE
                  SIMULTANEOUSLY ANALYZING THE COMPLETE SPECTRUM OF EVOLVED DECOMPOSITION PRODUCTS. THIS SYSTEM WILL
                  BE CAPABLE OF "QUICK RESPONSE" GENERATION OF DATA; WILL OPERATE IN EITHER THE FLAME OR NONFLAME
                  THERMAL DESTRUCTION MODE; AND WILL INCORPORATE A DEDICATED GC-MS FOR ANALYSIS OF EVOLVED PRODUCTS.
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*PROJECT: 006895-FIELD STUDIES OF THE OXIDATION OF SO2 IN CLOUDS

                 TASK =GC2Q -000598 **EPA=R805263-02  ** (GRANT)
                 STARTING/ COMPLETION DATE : 01/78 - 02/81 :   FY80
  EPA  OFFICER.: WE WILSON                EPA/ESRL - RTP                 FTS 8-629-5381
  INVESTIGATOR.: P  HOBBS                 UNIV OF WASHINGTON             ZOOL DEPT
  MILESTONES...: 07/79 -AIRCRAFT FLIGHTS BEGIN
                 11/79 -INTERIM REPORT
                 04/80 -ADDITIONAL AIRCRAFT FLIGHT
                 00/00 -REPORT ON IN-CLOUD STUDIES OF SOX TRANSFORMATIONS
  PROGRAM ID...: (PE-C2Q )           MEASURE SYS & INSTR. DEVEL FOR ENERGY REL POLL
  FINAL OUTPUT.: REPORT ON IN-CLOUD STUDIES OF SOX TRANSFORMATIONS.
  CURR. RESULTS: EIGHT FLIGHTS HAVE BEEN MADE IN WHICH SULFATE, PH AND OTHER
                 PHYSICAL DATA WAS COLLECTED. THE ANALYSES WILL BE VOMPLETED
                 AND EVALUATED.
  ORDIS CODES..: RECN-006895          SSIE-GMA  5802 1      EPA -R805263-02      ORD -RG10830-4080
                 PE  -C2Q             LABT-EPE
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 11-20-80   UPDATED-  11-20-80
             .   CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: A FIELD STUDY WILL BE CONTINUED TO INVESTIGATE THE OXIDATION OF SULFUR DIOXIDE IN NATURAL
                  WAVE CLOUDS. APPROACH: A TWIN-ENGINE AIRCRAFT EQUIPPED WITH SOPHISTICATED AEROSOL AND CLOUD DROPLET
                  INSTRUMENTATION WOULD BE USED TO MEASURE SIZE DISTRIBUTIONS IN THE INFLOW AND OUTFLOW OF WAVE
                  CLOUDS. POLLUTANT GAS CONCENTRATION MEASUREMENTS WOULD BE MADE AND AEROSOL SAMPLES COLLECTED FOR
                  ELEMENTAL ANALYSIS. UPWIND OF THE CLOUD, KNOWN QUANTITIES OF SULFUR DIOXIDE AND AMMONIA WOULD BE
                  RELEASED. SAMPLING WOULD BE PERFORMED DOWNWIND OF THE TRAILING EDGE OF THE WAVE CLOUD AT THE SAME
                  POTENTIAL TEMPERATURE OF THE RELEASE.
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*PROJECT: 001157-DEVELOPMENT OF A TISSUE-SELECTIVE IN VIVO BIOASSAY FOR ENVIRONMENTAL
                 AGENTS PRODUCING DNA DAMAGE
                   TASK =DC27 -004004 **EPA=R805337-03  ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/77 - 12/81 :   FY80
   EPA  OFFICER.: RJ BULL                    EPA/HERL - CINC                 FTS 8-684-7213
   INVESTIGATOR.: RH HART                    OHIO STATE UNIV                 COLL OF MED
                  SM D'AMBROSIO              OHIO STATE UNIV                 COLL OF MED
   MILESTONES...: 12/78 -METHOD FOR MEASURING DNA ON ALKALINE SUCROSE GRADIENT PERFECTED
                  12/79 -INITIAL EXPERIMENTS INVOLVING IN VIVO ADMINISTRATION OF CARCINOGENS
                  12/80 -COMPLETION OF DOSE-RESPONSE INFORMATION ON DNA DAMAGE
                  12/81 -ANIMALS HELD FOR TUMOR DEVELOPMENT SACRIFICED
                  12/81 -DETERMINATION OF WHETHER APPROACH IS FEASIBLE MEANS OF ASSESSING CARCINOGENIC P
   PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
   FINAL OUTPUT.: DETERMINATION OF WHETHER APPROACH IS FEASIBLE MEANS
                  OF ASSESSING CARCINOGENIC POTENCY.
   MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
                  20-12     DAA FOR WATER PROGRAM OPERATIONS
                  20-31     DAA FOR TESTING AND EVALUATION
                  30-99     CARCINOGENESIS
   CURR. RESULTS: ASSAY METHODS FOR DNA DAMAGE DEVELOPED AND APPLIED
                  IN VIVO.  EXPERIMENTS UNDERWAY TO EVALUATE DENA,
                  AFLATOXIN AND BENZO(A)PYRENE.
   ORDIS CODES..: RECN-001157          SSIE-GMA  4356 3     EPA -R805337-03      ORD -RD10831-5080
                  LABN-D6078-002       PE  -C27             LABT-OHR
   PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  06-28-80
                  CATEGORY-RESEARCH    ACCESS-PUBLIC
   ABSTRACT.....: OBJECTIVES: TO DETERMINE WHETHER MEASURES OF DNA DAMAGE PRODUCED BY A CHEMICAL CAN BE RELATED
                   QUANTITATIVELY WITH THE CARCINOGENIC POTENCY OF A CHEMICAL. EXPERIMENTS INVOLVE BOTH MEASUREMENT OF
                   DNA DAMAGE AND THE HOLDING OF ANIMALS FOR LONG-TERM TUMOR DEVELOPMENT. APPROACH: GENERALIZED DNA
                   DAMAGE, RECOGNIZED AS STRAND BREAKS, ALKALINE AND ENDONUCLEASE SENSITIVE SITES, PRODUCED BY
                   CHEMICAL CARCINOGENS WILL BE COMPARED WITH THEIR CARCINOGENIC POTENCY. THE ROLE OF DNA REPAIR
                   PROCESSES WILL ALSO BE EVALUATED. EXPERIMENTS CONDUCTED WILL INCLUDE CONSIDERATION OF TARGET ORGAN
                   SENSITIVITY AND INSENSITIVE STRAINS, AND WILL EVENTUALLY INVOLVE A WIDE RANGE OF CHEMICALS FROM
                   DIFFERENT CARCINOGEN CLASSES.
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*PROJECT: 005053-LICHENS AS PREDICTORS & INDICATORS OF POLLUTION FROM A COAL-FIRED POWER
                 PLANT
                  TASK =NC2N -000001 **EPA=R805367-03  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/77 - 06/81 :   FY80
   EPA  OFFICER.: EM PRESTON                EPA/ERL - CORVALLIS             FTS 8-420-4636
   INVESTIGATOR.: SR EVERSMAN               MONTANA STATE UNIV              DEPT OF BIOL
   MILESTONES...: 04/80 -SECTIONS FOR 6TH INTERIM REPORT - DRAFT
                  09/80 -SECTIONS FOR 6TH INTERIM REPORT - FINAL
                  10/80 -CHAPTERS FOR ZAPS REPORT - DRAFT
                  10/80 -CHAPTERS FOR SITING PROTOCOL - DRAFT
                  06/81 -CHAPTERS FOR ZAPS REPORT - FINAL
                  06/81 -CHAPTERS FOR SITING PROTOCOL - FINAL
   PROGRAM ID...: (PE-C2N )              TRANS,FATE, AND EFFECTS OF ENERGY REL POLLUTANTS
   MANDATE......: 10-02     CLEAN AIR ACT
   ORDIS CODES..: RECN-005053            SSIE-GMA  6080 1      EPA -R805367-03      ORD -RM10B30-1080
                  LABN-M831 -004         PE  -C2N              LABT-EPE
   PROJ STATUS..: ACTIVE -MULTIYEAR      INFO-UPDATED          ENTERED - 07-01-79   UPDATED-  10-24-80
                  CATEGORY-RESEARCH      ACCESS-PUBLIC                              PREVIOUS- 07-01-79
   ABSTRACT.....: OBJECTIVE: RESULTS OF THE 1979 FIELD SEASON WILL BE ANALYZED AND INTEGRATED WITH RESULTS FROM
                   PREVIOUS WORK INTO PROJECT FINAL REPORTS. DOSE RESPONSE MODELS WILL BE DEVELOPED FOR THE EFFECTS OF
                   SO2 ON LICHENS. THE USEFULNESS OF LICHENS AS BIOINDICATORS OF AIR POLLUTION STRESS IN GRASSLANDS
                   WILL BE DOCUMENTED.
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*PROJECT: 000809-INVESTIGATION OF A FLUID BED CARBON REGENERATION SYSTEM AT MANCHESTER,
                 NEW HAMPSHIRE
                  TASK =CC61 -01T045 **EPA=R805371-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/77 - 04/82 :    FY80
   EPA  OFFICER.: B  LYKINS                EPA/MERL - CINC                FTS 8-684-7209
   INVESTIGATOR.: R  BEAURIVAGE            MANCHESTER WATER WORKS         MANCHESTER             NH 03103
                  D  PARIS                 MANCHESTER WATER WORKS         MANCHESTER             NH 03103
                  D  KITTREDGE             MANCHESTER WATER WORKS         MANCHESTER             NH 03103
   PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
   MANDATE......: 10-09     REORGANIZATION PLAN # 3
                  10-03     TOXIC SUBSTANCES CONTROL ACT
                  10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                  10-02     CLEAN AIR ACT
   CURR. RESULTS: FLUIDIZES BED REACTIVATION FURNACE WASACCEPTEDIN JAN. 80
                  TEST FILTER (GAC) WAS PLACED ON LINE FEB.,80
   ORDIS CODES..: RECN-000809         SSIE-GMA  4029 3      EPA -R805371-01      ORD -RC10830-1080
                  LABN-C614A-7149     PE  -C61              LABT-EET
   PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                  CATEGORY-RESEARCH   ACCESS-PUBLIC                              PREVIOUS- 06-28-80
   ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT WILL BE TO EVALUATE BOTH THE COST AND PERFORMANCE OF A
                   CARBON REGENERATION SYSTEM UTILIZING FLUID BED PRINCIPLES, THE COST AND CAPABILITIES OF A
                   SEMIAUTOMATIC SYSTEM FOR CARBON HANDLING, AND THE ADSORPTIVE EFFECTIVENESS OF VIRGIN CARBON AND
                   REGENERATED CARBON FOR REMOVAL OF CHLORINATED ORGANIC SUBSTANCES FROM DRINKING WATER. APPROACH: THE
                   GENERAL APPROACH WILL BE TO UTILIZE ONE OF THE FOUR CARBON FILTERS AT THE TREATMENT PLANT AS A TEST
                   FILTER, TO FILL ONE-HALF OF THE FILTER WITH VIRGIN CARBON, THE REMAINING HALF WITH ONCE-REGENERATED
                   CARBON, AND THEN TO COMPARE THE RATE OF TRIHALOMETHANE REMOVAL BETWEEN THE FILTERS OVER A REPEATED
                   NUMBER OF REGENERATION CYCLES. THE CARBON WILL BE REGENERATED ON A NEAR CONTINUOUS BASIS OVER A
                   TWO-YEAR MONITORING AND EVALUATION PERIOD BEGINNING IN JANUARY, 1980. INVESTIGATIVE WORK IS TO BE
                   CARRIED OUT BY THE WATER SUPPLY STAFF OF THE MANCHESTER WATER WORKS WORKING IN CONJUNCTION WITH THE
                   WATER SUPPLY RESEARCH STAFF OF EPA.

*PROJECT: 003455-EFFECT OF PHOTOCHEMICAL OXIDANTS ON A MIXED CONIFEROUS FOREST ECOSYSTEM

                  TASK =HC04 -000011 **EPA=R805410-03  ** (GRANT)
                  STARTING/ COMPLETION DATE : 07/77 - 01/81 :    FY80
   EPA  OFFICER.: RG WILHOUR               EPA/ERL - CORVALLIS            503-757-4634
   INVESTIGATOR.: OC TAYLOR                UNIV OF CALIFORNIA             AIR POLL RES CTR
   MILESTONES...: 05/80 -FINAL REPORT
   PROGRAM ID...: (PE-C04 )          ECOL. PROC. AND EFFECTS
   ORDIS CODES..: RECN-003455         SSIE-GMA  4230 3      EPA -R805410-03      ORD -RH10830-4080
                  PE  -C04            LABT-EPE
   PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                  CATEGORY-RESEARCH   ACCESS-PUBLIC
   ABSTRACT.....: OBJECTIVE: FIELD DATA FROM DIVERSE ECOSYSTEMS STRESS STUDIES CONDUCTED OVER SEVEN YEAR PERIOD WILL
                   BE PROCESSED, SUB-MODELS WILL BE DEVELOPED, REFINED FOR DERIVING PREDICTIVE PHOTOCHEMICAL OXIDANT
                   STRESS WITH A) FOREST MOISTURE FLOW, B) PONDEROSA INJURY DEVELOPMENT, C) TREE STEAM DIAMETER GROWTH
                   AND HEIGHT GROWTH, D) PONDEROSA PINE ROOT DISEASE SPREAD, E) BARK BEETLE POPULATION DYNAMICS AND
                   FOREST STAND MORTALITY, F) CONIFER STAND DEFOLIATION AND NEEDLE LITTERFALL, G) FOREST TREE NEEDLE
                   LITTERFALL DECOMPOSITION, H) CONE AND SEED PRODUCTION RESPONSE, I) TREE SEEDLING ESTABLISHMENT AND
                   J) INTEGRATED STAND COMPOSITION AND TREE POPULATION DYNAMICS. RESULTS WILL SUPPORT OXIDANT AIR
                   QUALITY STANDARDS.
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*PROJECT: 000630-FEASIBILITY OF USING CHLORINE DIOXIDE IN THE DISINFECTION OF MUNICIPAL
                WASTEWATER EFFLUENTS
                 TASK =CC35 -03TA18 **EPA=R805426    ** (GRANT)
                 STARTING/ COMPLETION DATE : 09/77 - 06/80 :   FY80
                                             EPA/MERL - CINC                FTS 8-684-7683
  EPA  OFFICER.: MC MECKES                   STANFORD UNIV                  CIV ENG DEPT
  INVESTIGATOR.: PV ROBERTS
  MILESTONES...: 09/79 -INTERIM REPORT PUBLISHED (SYMPOSIUM)
  PROGRAM ID...: (PE-C35 )           WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 30-99     MICROBIOLOGY
  CURR. RESULTS: ON UNNITRIFIED EFFLUENT CHLORINE DIOXIDE EQUIVALENT
                 TO CHLORINE AS BACTERICIDE.  CHLORINE DIOXIDE BETTER
                 VIRUCIDE.                                                  ORD -RC10B30-5080
  ORDIS CODES..: RECN-000630         SSIE-GMA  3969 3     EPA -R805426
                 LABN-822BB-7059     PE  -C35             LABT-EET
                                     INFO-UPDATED         ENTERED - 10-01-77   UPDATED-  06-28-80
  PROJ STATUS..: ACTIVE -MULTIYEAR
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DETERMINE IF CHORINE DIOXIDE IS A FEASIBLE ALTERNATIVE TO CHLORINATION FOR
                  DISINFECTION OF MUNICIPAL WASTEWATER EFFLUENTS. APPROACH: COLIFORM REDUCTION EFFICIENCIES OF
                  CHLORINE AND CHLORINE DIOXIDE ON THE SAME WASTEWATER EFFLUENT WILL BE COMPARED. THE EFFECTS OF PH,
                  TEMPERATURE AND OXIDENT DEMAND ON DISINFECTION EFFICIENCY WILL BE STUDIED. EFFECTIVENESS AS A
                  VIRUCIDE AND POSSIBLE FORMATION OF CHLORINATED ORGANICS WILL BE DETERMINED AS WELL AS GENERATION
                  EFFICIENCY OF COMMERCIAL CHLORINE DIOXIDE GENERATORS. SCALE-UP CONSIDERATION WILL BE DETERMINED BY
                  BENCH SCALE DETERMINATION AND AVAILABLE LITERATURE.


*PROJECT: 001161-ASSESSMENT OF HEALTH IMPACT OF FILTERING ASBESTIFORM FIBERS IN DULUTH

                  TASK =DC60 -2B0002 **EPA=R805428-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 11/77 - 06/81 :   FY80
                                              EPA/HERL - CINC               513-684-7211
  EPA  OFFICER.: LJ MCCABE                    STATE DEPT OF HEALTH          MINNEAPOLIS              MN 55440
  INVESTIGATOR.: E  SIGURDSEN
  MILESTONES...: 00/80 -ANALYSIS FOR 1969-1976 IS EXPECTED IN EARLY 1980
  PROGRAM ID...: (PE-C60 )            HEALTH EFFECTS  - DRINKING WATER
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  CURR. RESULTS: COLLECTION IN PROGRESS; ANALYSIS OF 1969-1974
                 GASTROINTESTINAL CANCER INCIDENCE DATA DID NOT SHOW
                 ANY DEFINITE RELATIONSHIPS BETWEEN INGESTING
                 ASBESTIFORM FIBERS AND CANCER.  LONG LATENCY
                 PERIOD BETWEEN EXPOSURE AND CANCER FOR ASBESTOS
                 NECESSITATES ONGOING SURVEILLANCE.                          ORD -RD10B30-1080
  ORDIS CODES..: RECN-001161          SSIE-GMA  4837 3     EPA -R805428-02
                 LABN-D614B-046       PE  -C60             LABT-OHR
                                      INFO-UPDATED         ENTERED - 10-01-77   UPDATED-  06-28-80
  PROJ STATUS..: ACTIVE -MULTIYEAR
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DETERMINE THE RELATIONSHIP - OR DOCUMENT THE LACK OF ONE - BETWEEN ASBESTIFORM FIBERS IN
                  THE WATER SUPPLY AND CANCER. APPROACH: GATHER INCIDENCE DATA ON CANCER IN THE POPULATION OF DULUTH,
                  MINNESOTA AND COMPARE WITH CANCER RATES IN THE MINNEAPOLIS-ST. PAUL COMPONENT OF THE NATIONAL
                  CANCER SURVEY TO TEST WHETHER EXPOSURE TO ASBESTIFORM FIBERS IN THE DRINKING WATER MAY CONTRIBUTE
                  TO THE CANCER RATE.
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*PROJECT: 007001-EFFECT OF LIMING PHOSPHATE AND ORGANIC MATTER ON HEAVY METAL
                 AVAILABILITY TO PLANTS GROWN IN SLUDGE-AMENDED SOILS
                   TASK =CC36 -1C0049 **EPA=R805456     ** (GRANT)
                   STARTING/ COMPLETION DATE : 11/77 - 11/80 :   FY80
  EPA  OFFICER.: JA RYAN                   EPA/MERL - CINC                 FTS 8-684-7653
  INVESTIGATOR.: JW SHUFORD                ALABAMA A & M UNIV              DEPT. OF NATURAL RESOURCES
  MILESTONES...: 11/79 -GREENHOUSE EXPERIMENTS, SOIL, PLANT AND SEWAGE ANALYSIS
                 11/80 -FIELD EXPERIMENTS, PLANT GROWTH AND METAL UPTAKE
                 00/00 -RECOMMENDATION ON SLUDGE LAND DISPOSAL FOR AGRICULTURAL APPLICATIONS
  PROGRAM ID...: (PE-C36 )          URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  FINAL OUTPUT.: RECOMMENDATION ON SLUDGE LAND DISPOSAL FOR AGRICULTURE
                 APPLICATION.
  MANDATE......: 20-20      AA FOR AIR AND WASTE MANAGEMENT
  CURR. RESULTS: HIGHER SOYBEAN DRY MATTER YIELDS WERE OBTAINED FROM THE
                 PREVIOUSLY TREATED SOIL PLUS SLUDGE TREATMENTS SIGNIFICANTLY
                 HIGHER DRY MATTER YIELDS WERE OBTAINED AT PH 7.0. HIGHER
                 ZN, CU, CD, AND NI CONCENTRATIONS WERE OBSERVED IN STEM
                 PLUS LEAF AND SEED TISSUES WHEN SLUDGE OR INORGANIC SALTS
                 WERE ADDED TO THE UNTREATED CONTROL SOIL. SOIL PH OF 7.0
                 SIGNIFICANTLY DECREASED THE METAL CONCENTRATIONS IN PLANT.
  ORDIS CODES..: RECN-007001          SSIE-GMA  7070        EPA -R805456         ORD -RC10B30-2080
                 PE  -C36             LABT-EET
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 11-20-80   UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO EVALUATE THE EFFECTS OF PH, PHOSPHATE AND ORGANIC
                  MATTER ON METAL UPTAKE BY PLANTS AND REVERSION IN SOILS PREVIOUSLY SLUDGE-AMENDED AND THOSE
                  RECEIVING SEWAGE SLUDGE FOR THE FIRST TIME AND TO ASSESS THE EFFECTS OF PH, PHOSPHATE, AND ORGANIC
                  MATTER ON THE TOXICITY OF METALS TO PLANTS GROWN ON SOILS TREATED WITH SEWAGE SLUDGES AND SOILS
                  TREATED WITH INORGANIC SALTS OF THESE METALS. APPROACH: GREENHOUSE POTS CONTAINING PREVIOUSLY
                  SLUDGE-TREATED AND UNTREATED SOILS WERE ADJUSTED TO VARIOUS PH LEVELS. SLUDGE, INORGANIC SALTS (ZN,
                  CU, CD AND NI) AND PHOSPHATE WERE ADDED BEFORE PLANTING SOYBEAN. SLUDGE AND SOIL ANALYSES INCLUDED:
                  1) METALS, 2) PH, 3) ORGANIC MATTER, AND 4) NUTRIENTS. PLANTS WERE HARVESTED AT MATURITY FOR YIELD,
                  NUTRIENT AND METAL ANALYSES.
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*PROJECT: 000042-AN OPTIMIZATION OF THE LLE METHOD FOR THE ANALYSIS OF VOLATILE HALIDES
                 IN DRINKING WATER
                  TASK =A614D-000001 **EPA=R805472-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 11/77 - 11/79 :   FY79
  EPA  OFFICER.: T  BELLER                EPA/EMSL - CINC                  513-684-7311
  INVESTIGATOR.: WH GLAZE                 NORTH TEXAS STATE UNIV           INST OF APPLIED SCI
                 DR SCOTT                 NORTH TEXAS STATE UNIV           INST OF APPLIED SCI
  MILESTONES...: 11/79 -METHOD FOR THE ANALYSIS OF ORGANOHALIDES CONT. IN FINISHED WATER
  PROGRAM ID...: (PE-614 )           PUBLIC SECTOR ACTIVITIES- WATER SUPPLY
  FINAL OUTPUT.: METHOD FOR ANALYSIS OF ORGANOHALIDES CONTAINED
                 IN FINISHED WATER.
  MANDATE......: 10-99     DRINKING WATER REGULATIONS
  CURR. RESULTS: ALL METHOD PARAMETERS OPTIMIZED.
  ORDIS CODES..: RECN-000042           SSIE-GMA  4708 2      EPA -R805472-02       ORD -RA10B30-1079
                 PE  -614              LABT-MTS
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - 10-01-77    UPDATED-  07-01-79
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP, OPTIMIZE AND TEST A SIMPLE LIQUID/LIQUID EXTRACTION TECHNIQUE FOR THE
                  ANALYSIS OF VOLATILE ORGANOHALIDES CONTAINED IN DRINKING WATER AT THE MICROGRAM PER LITER LEVEL.
                  APPROACH: EACH PARAMETER OF THE METHOD IS BEING STUDIED TO FIND HOW SLIGHT VARIATIONS AFFECT THE
                  ACCURACY AND PRECISION OF THE METHOD. ACTUAL WATER SAMPLES ARE ALSO BEING ANALYZED TO DETERMINE THE
                  ACCURACY AND PRECISION OF THE OPTIMIZED METHOD. RESULTS TO DATE: ALL OF THE METHOD PARAMETERS HAVE
                  BEEN OPTIMIZED.
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*PROJECT: 005060-CHEMICAL STUDIES DIRECTED TOWARDS ECOLOGICAL DAMAGE ASSESSMENT OF
                 PETROLEUM DISCHARGES INTO THE MARINE ENVIRONMENT
                   TASK =PC31 -000011 **EPA=R805477      ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/77 - 09/80 :    FY80
  EPA  OFFICER.: R  ROGERSON           EPA/ERL - NARR                        FTS 8-838-4843
  INVESTIGATOR.: JG QUINN              UNIV OF RHODE ISLAND                  SCH OF OCEANOGRAPHY
                 EJ HOFFMAN            UNIV OF RHODE ISLAND                  SCH OF OCEANOGRAPHY
  MILESTONES...: 09/80 -FINAL PROJECT REPORT
  PROGRAM ID...: (PE-C31 )            MARINE ECO EFFECTS  - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 20-10     AA FOR WATER AND WASTE MANAGEMENT
  ORDIS CODES..: RECN-005060          SSIE-GMA  6070 1      EPA -R805477         ORD -RP10B30-5080
                 LABN-P608C-11        PE  -C31              LABT-EPE
  PROJ STATUS..: PROJECT-COMPLETED    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                              PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVES: TO CONDUCT ANALYTICAL CHEMICAL STUDIES IN SUPPORT OF ECOLOGICAL DAMAGE ASSESSMENT OF
                  ACUTE AND CHRONIC DISCHARGES OF PETROLEUM INTO THE NEAR-SHORE MARINE ENVIRONMENT. THESE STUDIES
                  WILL INCLUDE THE FOLLOWING: (1) CHEMICAL ANALYSES OF PETROLEUM COMPOUNDS IN SELECTED SAMPLES OF
                  WATER, SEDIMENTS AND ORGANISMS USING A VARIETY OF ANALYTICAL PROCEDURES (E.G. COLUMN, THIN-LAYER
                  AND GAS CHROMATOGRAPHY; INFRARED SPECTROSCOPY; AND COMBINED GAS CHROMATOGRAPHY-MASS SPECTROMETRY).
                  (2) DEVELOPMENT OF NEW METHODS AND MODIFICATION OF EXISTING PROCEDURES IN SUPPORT OF TOXICOLOGICAL
                  AND FIELD STUDIES. (3) PARTICIPATION WITH OTHER LABORATORIES IN THE DEVELOPMENT AND
                  INTERCALIBRATION OF STANDARD REFERENCE MATERIALS AND METHODS FOR PETROLEUM ANALYSIS. APPROACH AND
                  CURRENT PLANS: SAMPLES WILL BE COLLECTED FROM SELECTED SPILLS OF OPPORTUNITY AND SITES OF CHRONIC
                  OIL DISCHARGES. THE BASIC ANALYSES OF THESE SAMPLES WILL INVOLVE EXTRACTION, ISOLATION OF PETROLEUM
                  COMPOUNDS BY COLUMN AND/OR THIN-LAYER CHROMATOGRAPHY, AND ANALYSIS BY GAS CHROMATOGRAPHY USING
                  PACKED METAL COLUMNS AND GLASS CAPILLARY COLUMNS. SELECTED SAMPLE EXTRACTS WILL ALSO BE ANALYZED BY
                  INFRARED SPECTROSCOPY, AND COMBINED GAS CHROMATOGRAPHY-MASS SPECTROMETRY. IN COMBINATION WITH FIELD
                  EVALUATION AND LABORATORY TOXICOLOGICAL INVESTIGATIONS, THE PROPOSED RESEARCH WILL ALLOW A HIGHLY
                  INTEGRATED, MULTIDISCIPLINARY STUDY OF THE FATE AND EFFECTS OF OIL ON THE MARINE ECOSYSTEM.
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*PROJECT: 001902-CHEMICAL REACTIONS OF ATMOSPHERIC HALOGENATED SPECIES

                    TASK =GC1V -000517 **EPA=R805532-02  ** (GRANT)
                    STARTING/ COMPLETION DATE : 08/77 - 09/80 :   FY80
  EPA  OFFICER.: MC DODGE                  EPA/ESRL - RTP                      FTS-8-629-2374
  INVESTIGATOR.: MJ MOLINA                 UNIV OF CALIFORNIA                  CHEM DEPT
                 FS ROWLAND                UNIV OF CALIFORNIA                  CHEM DEPT
  MILESTONES...: 10/81 -FINAL REPORT
  PROGRAM ID...: (PE-C1V )           TRANSPORT AND FATE  - TOXICS
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: ABSORPTION CROSS SECTIONS OBTAINED FOR CBR2F2, CBRC1F2,
                 AND CBRF2CBRF2.
  ORDIS CODES..: RECN-001902          SSIE-GMA  3882 3      EPA -R805532-02       ORD -RG10B30-1080
                 LABN-G760C-DA-007    PE  -C1V              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS RESEARCH PROGRAM IS TO BETTER THE UNDERSTANDING OF THE
                  TRANSFORMATION AND REMOVAL OF HALOGENATED POLLUTANTS IN THE ENVIRONMENT. APPROACH: UV ABSORPTION
                  CROSS SECTIONS WILL BE OBTAINED FOR SELECTED BROMINATED COMPOUNDS, FTIR STUDIES OF SEMI-STABLE
                  MOLECULES OF ATMOSPHERIC SIGNIFICANCE WILL CONDUCTED, AND FIELD MEASUREMENTS OF METHYLCHLOROFORM
                  WILL BE MADE.

*PROJECT: 003984-IDENTIFICATION OF TOXIC POLLUTANT DISCHARGES FOR UNIT PROCESSES

                    TASK =VC1Y -000001 **EPA=R805620     ** (GRANT)
                    STARTING/ COMPLETION DATE : 10/77 - 01/81 :   FY80
  EPA  OFFICER.: J  KING                   EPA/OEET- DAA                       FTS-755-4857
  INVESTIGATOR.: A  GOLDFARB               MITRE CORP                          MCLEAN                        VA 22101
                 E  HERRICK                MITRE CORP                          MCLEAN                        VA 22101
  MILESTONES...: 02/78 -TOXIC POLLUTANT ID.: TRIFLURALIN MANUFACTURING 02/78-01
                 02/78 -TOXIC POLLUTANT ID.: ATRAZINE MANUFACTURING 02/78-02
                 02/78 -TOXIC POLLUTANT ID.: ACRYLONITRILE MANUFACTURING 02/78-03
                 11/78 -TOXIC POLLUTANT ID.: NITROBENZENE/ANILINE MANUFACTURING
                 11/78 -TOXIC POLLUTANT ID.: AMINATION PROCESSES
                 02/79 -TOXIC POLLUTANT ID.: ALKYL AND ALKYNOL AMINES MFG.
                 01/80 -TOXIC POLLUTANT ID: HALOGENATION, OXYHALOGENATION, HYDROHALOGENATION, DEHYDROHA
  PROGRAM ID...: (PE-C1Y )          INDUSTRIAL PROCESSES- TOXICS SUBSTANCES
  MANDATE......: 20-30     AA FOR TOXIC SUBSTANCES
  CURR. RESULTS: TOXIC POLLUTANTS ID'S COMPLETED FOR TRIFLURALIN,
                 ATRAZINE, ACRYLONITRILE, ALKYL AND ALKYNOL AMINES
                 MANUFACTURING.
  ORDIS CODES..: RECN-003984          SSIE-GMA  4865 3      EPA -R805620          ORD -RV10B30-1080
                 PE  -C1Y             LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-77    UPDATED-  01-01-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: CHARACTERIZATION OF TOXIC DISCHARGES AND FEEDSTOCK, INTERMEDIATE, AND PRODUCT CONTAMINANTS FOR
                  REPRESENTATIVE CHEMICAL MANUFACTURING OPERATIONS WHICH UTILIZE THE MAJOR UNIT PROCESSES, AND
                  ASSESSMENT OF NEW CONTROL TECHNOLOGIES AND IN-PLANT MODIFICATIONS TO OBVIATE THEIR DISCHARGE.
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*PROJECT: 006719-ECOSYSTEM RESPONSES TO ALTERNATIVE PESTICIDES IN A TERRESTRIAL
                 ENVIRONMENT - A SYSTEMS APPROACH
                   TASK =MC87 -000004 **EPA=R805624-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 00/80 - 11/80 :   FY80
  EPA  OFFICER.: JD GILE                    EPA/ERL - CORVALLIS                 FTS 8-420-4649
  INVESTIGATOR.: ED GOODMAN                 MICHIGAN STATE UNIV                 ELEC ENG & SYS SCI
  PROGRAM ID...: (PE-C87 )             ECOLOGICAL EFFECTS - PESTICIDIES
  MANDATE......: 10-06     FEDERAL INSECTICIDE, FUNG. AND RODENT. ACT
                 20-34     DAA FOR PESTICIDE PROGRAMS
  ORDIS CODES..: RECN-006719           SSIE-GMA  6888        EPA -R805624-01       ORD -RM10830-5080
                 PE  -C87              LABT-EPE
  PROJ STATUS..: PROJECT-ACTIVE        INFO-ORIGINAL         ENTERED - 10-24-80    UPDATED-  10-24-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO FORMULATE A GENERAL MATHEMATICAL MODEL TO ASSIST IN PREDICTING THE POTENTIAL HAZARDS
                  OF PESTICIDES IN A TERRESTRIAL ECOSYSTEM, SPECIFICALLY ORGANOPHOSPHATE INSECTICIDES IN AN APPLE
                  ORCHARD. THE PROBLEM IS APPROACHED BY FIRST APPLYING AN ORGANOPHOSPHATE INSECTICIDE, GUTHION, TO AN
                  APPLE ORCHARD AND THEN DETERMINING RESIDUE LEVELS IN THE RUNOFF WATER, AIR, FOLIAGE, LITTER AND
                  SOIL. IN ADDITION EFFECTS ON SELECTED POPULATIONS OF INVERTEBRATES ARE DETERMINED. THIS DATA IS
                  THEN USED TO DEVELOP A PESTICIDE RUNOFF MODEL AND INVERTEBRATE EFFECTS MODEL. THE FINAL YEAR OF
                  THIS GRANT WILL DEAL WITH THE PROBLEM OF VALIDATING BOTH MODELS, USING A SECOND INSECTICIDE,
                  DIAZINON.

*PROJECT: 001779-DEVELOPMENT AND TESTING OF METEOROLOGICAL MODELS SUITABLE FOR AIR
                 QUALITY STUDIES
                   TASK =GC05 -000258 **EPA=R805659-03  ** (GRANT)
                   STARTING/ COMPLETION DATE : 02/78 - 03/81 :   FY80
  EPA  OFFICER.: FS BINKOWSKI               EPA/ESRL - RTP                      FTS 8-629-4524
  INVESTIGATOR.: RA ANTHES                  PENNSYLVANIA STATE UNIV             EARTH & MINERAL SCI
                 TT WARNER                  PENNSYLVANIA STATE UNIV             EARTH & MINERAL SCI
  MILESTONES...: 03/81 -ORD FINAL REPORT ON SIMULATION MODELS
  PROGRAM ID...: (PE-C05 )             TRANS. AND FATE - AIR
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: MODEL EXISTS AND IS VALIDATED AGAINST REAL DATA.
                 MODEL BEING PUT ON EPA COMPUTER.
  ORDIS CODES..: RECN-001779           SSIE-GMA  5168 2      EPA -R805659-03       ORD -RG10830-1080
                 LABN-G603A-AB-018     PE  -C05              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DEVISE NUMERICAL MODEL OF ATMOSPHERIC MOTION, TEMPERATURE, AND MOISTURE FIELDS FOR THE
                  TRANSPORT OF POLLUTANTS ON THE REGIONAL SCALE. APPROACH: USE STATE OF THE ART WORK FROM OTHER WORK
                  IN NUMERICAL WEATHER PREDICTIONS.
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*PROJECT: 000091-SECRETARIAT ACTIVITIES OF INTERNATIONAL STANDARDS ORGANIZATION TECHNICAL
                 COMMITTEE 147 ON WATER QUALITY
                  TASK =A801 -000062 **EPA=R805706-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 11/77 - 11/82 :   FY79
  EPA  OFFICER.: RL BOOTH                EPA/EMSL - CINC                FTS 8-684-7301
  INVESTIGATOR.: I  RESNICK              AMERICAN NATL STANDARDS        NEW YORK                      NY 10018
                 R  HALKA                AMERICAN NATL STANDARDS        NEW YORK                      NY 10018
  MILESTONES...: 11/82 -INTERNATIONAL STANDARDS FOR MEASUREMENT OF WATER CHARACTERISTICS
  PROGRAM ID...: (PE-801 )           QUALITY ASSURANCE  - WATER QUALITY
  FINAL OUTPUT.: INTERNATIONAL STANDARDS FOR MEASUREMENT OF WATER
                 CHARACTERISTICS.
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
                 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 20-11     DAA FOR WATER PLANNING AND STANDARDS
                 20-13     DAA FOR DRINKING WATER
                 20-61     DAA FOR MONITORING AND TECHNICAL SUPPORT
  CURR. RESULTS: FOURTEEN DRAFTS OF PROPOSED STANDARDS DEVELOPED AND
                 42 WORKING GROUPS WHICH ARE PREPARING DRAFTS OF
                 INTERNATIONAL STANDARDS ESTABLISHED.
  ORDIS CODES..: RECN-000091         SSIE-GMA  4555 1     EPA -R805706-02      ORD -RA10830-5079
                 LABN-A621A-62       PE  -801             LABT-MTS
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - 10-01-77    UPDATED-  07-01-79
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: SUPPORT FOR CONDUCTING THE SECRETARIAT OF THE INTERNATIONAL STANDARDS ORGANIZATION (ISO)
                  TECHNICAL COMMITTEE (TC) 147 ON WATER QUALITY WHICH IS DEVELOPING INTERNATIONAL STANDARDS. THE TC
                  147 SCOPE IS "STANDARDIZATION IN THE FIELD OF WATER QUALITY, INCLUDING DEFINITION OF TERMS,
                  SAMPLING OF WATERS, MEASUREMENT AND REPORTING OF WATER CHARACTERISTICS; LIMITS OF ACCEPTABILITY FOR
                  WATER QUALITY ARE EXCLUDED." APPROACH: ACTIVITIES INCLUDE STANDARDIZATION IN CHEMICAL, PHYSICAL,
                  RADIOLOGICAL, MICROBIOLOGICAL, BIOLOGICAL AND BIOCHEMICAL METHODS. FORTY-FIVE COUNTRIES ARE MEMBERS
                  OF ISO/TC 147 WHICH WAS ORGANIZED IN 1972. RESULTS TO DATE: FOURTEEN DRAFTS OF PROPOSED STANDARDS
                  HAVE BEEN DEVELOPED AND 42 WORKING GROUPS WHICH ARE PREPARING DRAFTS OF INTERNATIONAL STANDARDS
                  HAVE BEEN ESTABLISHED.
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*PROJECT: 004886-THE DISPERSION AND FATE OF CONTAMINANTS IN A STRATIFIED LAKE

                   TASK =NC30 -000038 **EPA=R805716     ** (GRANT)
                   STARTING/ COMPLETION DATE : 01/78 - 01/81 :   FY80
  EPA  OFFICER.: DM DOLAN                 EPA/ERL - DULUTH                FTS 8-226-7811
  INVESTIGATOR.: W  LICK                  UNIV OF CALIFORNIA              DEPT. OF MECHANICAL & ENVI
  MILESTONES...: 09/78 -COMPLETE FIELD STUDIES, BEGIN LAB STUDY
                 01/79 -COMPLETE 2-D MODELING
                 04/79 -COMPLETE LAB STUDIES, BEGIN FIELD STUDIES
                 01/80 -BEGIN DATA ANALYSIS
                 09/80 -COMPLETE PCB LAB STUDIES
  PROGRAM ID...: (PE-C30 )           GREAT LAKES PROGRAM
  MANDATE......: 30-99     LIMNOLOGY
  CURR. RESULTS: MOST OF LAB EXPERIMENTS COMPLETED.  MATH MODELS IN TWO DIMENSION
                 HAVE BEEN CHECKED AGAINST FIELD OBSERVATIONS.  THE PROJECT IS
                 ENTERING THE DATA ANALYSIS PHASE. PROJECT MOVED TO
                 UNIV. CALIF. AT SANTA BARBARA, PRELIMINARY SEDIMENT MODELS
                 DEVELOPED.
  ORDIS CODES..: RECN-004886         SSIE-GMA  5853 1      EPA -R805716          ORD -RN10830-3080
                 PE  -C30            LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO UNDERSTAND THE FATE OF CONTAMINANTS IN LARGE LAKES ESPECIALLY DURING STRATIFICATION.
                  APPROACH: STUDY IN DETAIL THE FATE OF NUTRIENTS AND TRACE METALS AS AFFECTED BY DISPERSION IN THE
                  LAKE AND BY BIOCHEMICAL TRANSFORMATIONS IN THE SEDIMENTS. THE EMPHASIS IS ON MATHEMATICAL MODELING
                  AND LAB EXPERIMENTS.
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*PROJECT: 004799-OUTDOOR SIMULATION OF AIR POLLUTION CONTROL STRATEGIES

                 TASK =GC05 -000292 **EPA=R805726-03  ** (GRANT)
                 STARTING/ COMPLETION DATE : 02/78 - 01/81 :   FY80
  EPA  OFFICER.: BM GAY                   EPA/ESRL - RTP                  FTS 8-629-2830
  INVESTIGATOR.: HE JEFFRIES              UNIV OF NORTH CAROLINA          DEPT OF ENV SCI & ENGIN
                 RM KAMENS                UNIV OF NORTH CAROLINA          DEPT OF ENV SCI & ENGIN
  MILESTONES...: 05/81 -ORD FINAL REPORT ON OUTDOOR SMOG CHAMBER EXPERIMENTS
  PROGRAM ID...: (PE-C05 )           TRANS. AND FATE - AIR
  FINAL OUTPUT.: ORD FINAL REPORT ON SMOG CHAMBER FINDINGS
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: EXPERIMENTS HAVE SHOWN: EFFECT OF DAY OLD, DILUTE SMOG
                 ON FRESH URBAN MIX, EFFECTS OF CHANGES IN STARTING
                 CONDITIONS FOR FRESH URBAN MIX SYSTEMS, COMPARISON
                 OF REACTIVITY OF UNC URBAN HYDROCARBON MIX WITH
                 REACTIVITY OF PROPYLENE/BUTANE MIXTURE.
  ORDIS CODES..: RECH-004799        SSIE-GNA  5982 1      EPA -R805726-03       ORD -RG10830-1080
                 LABH-G603A-AC-17   PE  -C05              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH  ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS GRANT ARE TO DEFINE EFFECTS OF DAY OLD SMOG, INDIVIDUAL COMPONENTS
                  OF DAY OLD SMOG, REACTIVITY OF HYDROCARBONS IN MULTI-DAY SMOG CHAMBER IRRADIATIONS WHICH SIMULATE
                  LONG RANGE POLLUTANT TRANSPORT CONDITIONS, AND STUDY THE EFFECTS OF NATURAL HYDROCARBONS ON URBAN
                  HYDROCARBON REACTIVITY. APPROACH: EXPERIMENTS ARE CONDUCTED IN DUAL TEFLON OUTDOOR SMOG CHAMBERS
                  USING NATURAL SUNLIGHT. MULTIDAY IRRADIATIONS ARE CARRIED OUT WITH AND WITHOUT ADDITION OF FRESH
                  EMISSIONS TO DETERMINE THE INFLUENCE OF SPENT SMOG SYSTEMS ON OXIDANT FORMATION OF THE NEXT DAY.
                  THE EFFECT OF NATURAL HYDROCARBON EMISSIONS WHEN ADDED TO THE HYDROCARBON/NOX MIX WILL PROVIDE
                  INFORMATION AS TO NATURAL HYDROCARBON REACTIVITY AND OXIDANT FORMATION.
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*PROJECT: 006899-APPLICATION OF THE LAPIDUS AMUNDSON SOLUTE MOVEMENT MODEL TO PREDICTING
                 SOIL ATTENUATION OF LEACHATE METALS
                  TASK -CC73 -C00013 **EPA=R805731-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/79 - 11/81 :    FY80
  EPA  OFFICER.: MH ROULIER                 EPA/MERL - CINC                     FTS 8-684-7871
  INVESTIGATOR.: WH FULLER                  UNIV OF ARIZONA                     DEPT OF ENTOMOLOGY
  MILESTONES...: 11/81 -USER MANUAL FOR ESTIMATING METALLIC POLLUTANT MOVEMENT RATES RELATIVE TO CARRIE
  PROGRAM ID...: (PE-C73 )          SOLID & HAZARDOUS WASTE
  FINAL OUTPUT.: USER MANUAL FOR ESTIMATING NATALLIC POLLUTANT MOVEMENT
                 RATES RELATIVE TO CARRIER FLUID VELOCITY.
  MANDATE......: 10-05      RESOURCE CONSERVATION AND RECOVERY ACT
                 10-13      SOLID WASTE DISPOSAL ACT
                 10-03      TOXIC SUBSTANCES CONTROL ACT
  CURR. RESULTS: WORK IS COMPLETED ON CADIUM IN MUNICIPAL LANDFILL LEACHATE
                 WORK ON NICKEL AND ZINC, ALONE AND IN COMBINATIONS OF TWO
                 AND THREE IS IN PROGRESS. RELATIVE CONCENTRATIONS (C/C) OF
                 COMBINATIONS MOVE SIMULARLY TO SINGLE ELEMENTS. IN THE NE
                 PHASE, THIS PREDICTIVE TOOL WILL BE TESTED WITH INDUSTRIAL
                 WASTE LESCHATES OF LOW ORGANIC CONTENT AND WITH DATA
                 FROM OTHE FIELD AND LABORATORY STUDIES.
  ORDIS CODES..: RECN-006899          SSIE-GMA  6767 1      EPA -R805731-02       ORD -RC10830 -108
                 PE  -C73             LABT-EET
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 11-20-80    UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  COMMENT......: 15 (B) VII:  99-ADSORPTION, PRECIPITATION AND ION EXCHANGE
                 NATURAL CLEANSING PROCESS'  (3) IS CORRECT FOR SOILS BUT
                 IS USED MORE OFTEN TO DESCRIBE ORGANIC MATTER DEGRADATION
                 IN SURFACE WATERS.
  ABSTRACT.....: OBJECTIVE: DEVELOP USER-ORIENTED METHODS FOR PREDICTING MOVEMENT OF METALS IN SOIL AS A BASIS FOR
                  IMPROVING SELECTION OF SITES FOR DISPOSING OF SOLID AND HAZARDOUS WASTES. APPROACH: CONDUCT
                  LABORATORY STUDIES WITH SOILS AND LEACHATES FROM INDUSTRIAL WASTES TO MEASURE THE AVERAGE MOVEMENT
                  RATES OF SELECTED METALS. USE THE LAPIDUS AMUNDSON SOLUTE MOVEMENT MODEL AND MEASURED AVERAGE
                  MOVEMENT RATES TO PREDICT LONG TERM, STEADY-STATE MOVEMENT RATES OF SELECTED METALS FOR EACH OF THE
                  SETS OF EXPERIMENTAL CONDITIONS. CORRELATE LONG TERM MOVEMENT RATES WITH SOIL AND LEACHATE
                  PROPERTIES TO DEVELOP REGRESSION EQUATIONS THAT FORM THE BASIS FOR A S'MPLIFIED PREDICTIVE TOOL.
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*PROJECT: 004858-DEVELOPMENT OF CHEMICAL IONIZATION MASS SPECTROMETRY FOR THE ANALYSIS OF
                 AROMATIC HYDROCARBONS, PHENOLS, & AMINES IN WATER (ABBREV)
                  TASK =KC37 -000146 **EPA=R805790     ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/78 - 03/81 :   FY80
  EPA  OFFICER.: JM MCGUIRE                EPA/ERL - ATHENS                    FTS 8-250-3185
  INVESTIGATOR.: D  HUNT                   UNIV OF VIRGINIA                    ARTS & SCI/ENV SCI DEPT
  MILESTONES...: 12/79 -FIRST ANNUAL REPORT
                 12/80 -SECOND ANNUAL REPORT
                 03/81 -REPORT ON PPINICI METHODOLOGY
  PROGRAM ID...: (PE-C37 )            CHARAC. AND MEASURE METHODS DEVEL -WATER QUALITY
  FINAL OUTPUT.: REPORT ON PRINCIPAL METHODOLOGY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-004858          SSIE-GMA  5827 1      EPA -R805790         ORD -RK10B30-1080
                 LABN-K713B-146       PE  -C37              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 07-01-79   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE GOAL OF THIS RESEARCH IS THE DEVELOPMENT OF NOVEL IONIZATION METHODS FOR THE ANALYSIS
                  OF POLYAROMATIC HYDROCARBONS (PAH'S), PHENOLS AND AMINES IN COMPLEX ENVIRONMENTAL SAMPLES BY
                  CHEMICAL IONIZATION MASS SPECTROMETRY. APPROACH: PRELIMINARY RESULTS INDICATED THAT USE OF AN
                  OXYGEN/HYDROGEN MIXTURE AS A REAGENT GAS IN COMBINATION WITH PULSED POSITIVE ION NEGATIVE ION
                  CHEMICAL IONIZATION MASS SPECTROMETRY (PPINICIMS) WILL AFFORD ONLY MOLECULAR IONS ON THE POSITIVE
                  ION TRACE AND EXTENSIVE STRUCTURAL INFORMATION ON THE NEGATIVE ION TRACE FOR PAH'S IN COMPLEX
                  MIXTURES. DIFFERENTIATION OF MANY ISOMERIC PAH'S, PHENOLS, AND ALIPHATIC OR AROMATIC SULFUR
                  COMPOUNDS WITHOUT PRIOR SEPARATION SHOULD ALSO BE POSSIBLE WITH THIS METHODOLOGY. USE OF A
                  DERIVATIZATION PROCEDURE COMBINED WITH GC-ELECTRON CAPTURE NEGATIVE ION CIMS WILL BE EVALUATED FOR
                  THE DETECTION AND QUANTITATION OF PHENOLS AND AMINES AT THE FEMTOGRAM LEVEL IN ENVIRONMENTAL
                  SAMPLES.
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*PROJECT: 004724-DEMONSTRATION OF THE SWIRL & HELICAL BEND REGULATOR/SEPARATOR AS STORM
                 SEWER CONTROL DEVICES
                   TASK =CC35 -S2T012 **EPA=S805795     ** (GRANT)
                   STARTING/ COMPLETION DATE : 03/78 - 07/81 :   FY80
  EPA  OFFICER.: RP TRAVER                 EPA/MERL - CINC              FTS-8-340-6677
  INVESTIGATOR.: MC PISANO                 ENV DESIGN & PLANNING INS    CAMBRIDGE                 MA 02139
                 G  ARONSON                ENV DESIGN & PLANNING INS    CAMBRIDGE                 MA 02139
  MILESTONES...: 08/78 -DETAILED SITE CLASSIFICATION, COMPUTER MODELING
                 02/79 -SITE PREPARATION
                 06/79 -COMPLETE INSTALLATION OF POLLUTION CONTROL DEVICES
                 03/81 -COMPLETE FIELD EVALUATION PROGRAM
                 07/81 -DRAFT FINAL REPORT
  PROGRAM ID...: (PE-C35 )            WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                 30-99      URBAN RUNOFF TREATMENT
  CURR. RESULTS: INSTALLATION OF SWIRL & HELICAL BEND DEVICES
                 COMPLETE. INITIAL RESULTS SHOW PROMISING REMOVAL
                 EFFICIENCIES.
  ORDIS CODES..: RECN-004724          SSIE-GMA  5877 1      EPA -S805795         ORD -RC10830-5080
                 LABN-C822A-S2T012    PE  -C35              LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                              PREVIOUS- 10-24-80
  ABSTRACT.....: OBJECTIVE: THE SWIRL & HELICAL BEND CONCENTRATOR/REGULATORS ARE BEING EVALUATED UTILIZING THREE 6
                  CFS STORMWATER AND SIMULATED COMBINED SEWER WASTE STREAMS. APPROACH: THE PROJECT INVOLVES DESIGN,
                  FABRICATION, INSTALLATION AND TESTING OF THE SWIRL AND HELICAL BEND REGULATOR/SEPARATORS FOR A
                  TWENTY-ONE MONTH PERIOD.
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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R805807-02

TITLE OF PROJECT

Cyanide Removal from Coke Making and Blast Furnace Waste Waters

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. D. J. Spottiswood, Assoc. Prof., Dept. of Metallurgical Engineering
Dr. G. W. Lower, Professor, Dept. of Metallurgical Engineering

NAME AND ADDRESS OF APPLICANT INSTITUTION

Michigan Technological University
Houghton, Michigan 49931

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Waste waters produced in the coke making operation contain cyanide and cyanide related species, phenol, ammonia, sulfide, tars and oil, and suspended solids. In blast furnace operations, the waste water from the off-gas scrubbing operation contains significant amounts of cyanides, phenol, ammonia, sulfide and suspended solids. The amount and nature of each contaminant varies with the operation of a particular plant, with variations in raw materials, and from plant to plant.

In this project, it is planned to develop a process for the removal of cyanide, ferrocyanide, and thiocyanate ions from these waste waters. The process is based on the extraction of these ions by a quaternary amine, followed by a precipitate flotation step to remove the ions and extractant from the water. The chemistry of the system will be studied in simulated solutions and ultimately in real plant waste waters. Tests will be undertaken to determine the operating parameters required for design of a pilot plant.

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*PROJECT: 005038-DEVELOPMENT OF A NATIONAL LIBRARY CENTER FOR GROUND WATER INFORMATION

                  TASK =L824C-000018 **EPA=R805863     ** (GRANT)
                  STARTING/ COMPLETION DATE : 05/78 - 04/81 :   FY79
EPA  OFFICER.: WJ DUNLAP              EPA/ERL - ADA                 FTS 8-743-2313
INVESTIGATOR.: JH LEHR                NATL WAT WELL ASSN RES FAC    WORTHINGTON          OH 43085
               J  POLAND              NATL WAT WELL ASSN RES FAC    WORTHINGTON          OH 43085
MILESTONES...: 02/80 -COMPLETE DEVELOPMENT OF GROUND WATER THESAURUS
               08/80 -COMPLETE INITIAL EXTERNAL EVALUATION OF SYSTEM, PRODUCE USERS MANUAL
               04/81 -COMPILE FINAL EVALUATION OF ALL ASPECTS OF DATA BASE DEVELOPMENT, OPERATION, AN
PROGRAM ID...: (PE-824 )          DRINK WATER TREAT & GROUND WATER PROT  -DRINKING WATER
MANDATE......: 10-15     SAFE DRINKING WATER ACT
CURR. RESULTS: EXTENSIVE LITERATURE SEARCH
               A THESAURUS OF GROUND WATER TERMS HAS BEEN DEVELOPED AND
               REFINED BASED ON COMMENTS OF QUALIFIED EVALUATORS.
ORDIS CODES..: RECN-005038        SSIE-GWA  6024       EPA -R805863         ORD -RL10B30-1079
               LABN-L614C-018     PE  -824             LABT-EPE
PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - 07-01-79   UPDATED-  07-01-79
               CATEGORY-RESEARCH  ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: BECAUSE OF SEVERE DOCUMENTATION PROBLEMS EXISTING IN THE AREA OF GROUND WATER TECHNOLOGY,
                THE NATIONAL WATER WELL ASSOCIATION IS DEVELOPING AN INTERACTIVE BIBLIOGRAPHIC DATA BASE
                ENCOMPASSING THE WORLD'S SIGNIFICANT LITERATURE CONCERNING AQUIFERS, GROUND WATER HYDRAULICS,
                GROUND WATER POLLUTION AND POLLUTION CONTROL, GROUND WATER RESOURCE MANAGEMENT, AND WATER WELL
                CONSTRUCTION. THE DATA BASE WILL INCLUDE AN UP-TO-DATE COMPUTER ACCESS SYSTEM COMPATIBLE WITH
                CURRENT STANDARS. APPROACH: A THESAURUS OF GROUND WATER DESCRIPTORS, COMPRISED MOSTLY OF
                HYDROGEOLOGIC TERMS ARRANGED IN HIERARCHICAL ORDER, WILL BE DEVELOPED. THIS THESAURUS WILL COMPRISE
                ONE OF SEVERAL FIELDS, INCLUDING AUTHOR, TITLE, JOURNAL, GEOGRAPHIC REGION, MAJOR AQUIFER REGION,
                AND CHEMICAL CONSTITUENTS, WHICH WILL BE USED FOR INDEXING AND ENTERING OF LITERATURE, AND WHICH
                WILL PROVIDE ACCESS TO THE DATA BASE. THE THESAURUS WILL BE EVALUATED BY A PANEL OF GROUND WATER
                EXPERTS AND MODIFIED APPROPRIATELY. AS DEVELOPMENT OF THE DATA BASE AND COMPUTER ACCESS SYSTEM
                PROCEEDS, SYSTEM OPERATION WILL BE ASSESSED BY QUALIFIED EXTERNAL EVALUATORS TO PROVIDE A BASIS FOR
                REFINEMENT TO ATTAIN MAXIMUM FLEXIBILITY AND EFFECTIVENESS IN MEETING USER NEEDS. A USER'S GUIDE TO
                THE DATA BASE WILL BE PRODUCED, AND ACTIVITIES REQUIRED TO BRING THE DATA BASE TO THE ATTENTION OF
                POTENTIAL USERS WILL BE CONDUCTED.
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*PROJECT: 000581-DEVELOPMENT OF A TENTATIVE STANDARD FOR EVALUATING OXYGEN TRANSFER

                TASK =CC35 -3D0213 **EPA=R805868     ** (GRANT)
                STARTING/ COMPLETION DATE : 03/78 - 02/81 :   FY80
 EPA  OFFICER.: RC BRENNER             EPA/MERL - CINC             FTS 8-684-7657
 INVESTIGATOR.: WC BOYLE               UNIV OF WISCONSIN           CIL & ENV ENG
                H  TUVAL               AMERICAN SOC OF CIVIL ENG   RES & STANDARDS SERVS
 MILESTONES...: 04/78 -FIRST WORKSHOP HELD (STATE-OF-ART REVIEW)
                05/79 -WORKING GROUP DRAFT REPORTS SUBMITTED FOR SUBCOMMITTEE REVIEW
                11/79 -SECOND WORKSHOP HELD (CONSENSUS POSITIONS FINALIZED)
                09/80 -FINAL REPORT (TENTATIVE STANDARD) SUBMITTED TO EPA PROJECT OFFICER
                02/81 -FINAL REPORT PUBLISHED
 PROGRAM ID...: (PE-C35 )          WASTEWATER SYSTEMS CONTROL TECHNOLOGY
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
 CURR. RESULTS: FIVE WORKING HAVE BEEN FORMED TO PREPARE DRAFT REPORTS
                FOR THE MAJOR TOPICAL AREAS OF; (1) CLEAN WATER TESTING
                (2) RESPIRING SYSTEMS TESTING (3) ALPHABETA AND TEMPERATURE
                CORRECTIONS (4) DATA AND MOLDELING AND (5) MIXING AND
                GEOMETRY SCALE-UP EFFECTS THESE DRAFT  REPORTS WERE CRITIQUE
                BY THE ENTIRE SUB COMMITTEE AT THE WRAPUP WORKSHOP IN NOV 79
                SYNTHESIS AND INTEGRATION OF THE FIVE WORKING GROUP DRAFT
                REPORTS INTO A FINAL EPA PROJECT REPORT IS CURRENTLY IN PROGRESS.
 ORDIS CODES..: RECN-000581       SSIE-GMA  5111 2     EPA -R805868         ORD -RC10830-1080
                LABN-C611B-044    PE  -C35             LABT-EET
 PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED     ENTERED - 10-01-77   UPDATED-  01-01-80
                CATEGORY-RESEARCH     ACCESS-PUBLIC                         PREVIOUS- 07-01-79
 ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT ARE TO DEVELOP A PROPOSED INTERIM STANDARD FOR THE
                 EVALUATION OF OXYGEN TRANSFER EQUIPMENT IN WATER AND WASTEWATER AND TO RECOMMEND PROCEDURES FOR THE
                 VERIFICATION OF THIS STANDARD, WHICH IF CARRIED OUT AND RESULTS INCORPORATED WILL EVENTUALLY RESULT
                 IN A FINAL CONSENSUS STANDARD. APPROACH: ASCE HAS ESTABLISHED A VOLUNTARY SUBCOMMITTEE ON OXYGEN
                 TRANSFER STANDARDS. THROUGH UTILIZATION OF WORKSHOPS, INTERNAL DISCUSSIONS, AND SELECTED LABORATORY
                 RESEARCH STUDIES, THE SUBCOMMITTEE IS COMPREHENSIVELY ASSESSING THE MAJOR FACTORS AFFECTING AND THE
                 AREAS OF AGREEMENT AND DISAGREEMENT IN EVALUATING OXYGEN TRANSFER. WELL-KNOWN EXPERTS IN THE FIELD
                 HAVE BEEN RETAINED BY ASCE AS PART OF THE PROJECT TO REVIEW THE OUTPUT OF THESE ACTIVITIES AND
                 CONDENSE THE WORK OF THE SUBCOMMITTEE INTO A DRAFT TENTATIVE STANDARD PROCEDURAL MANUAL.
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*PROJECT: 000789-REMOVAL OF NITRATE FROM CONTAMINATED WATER SUPPLIES FOR PUBLIC USE

                  TASK -CC61 -01T057 **EPA=R805900-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/78 - 12/80 :   FY80
                                              EPA/MERL - CINC                  FTS 8-684-7228
 EPA  OFFICER.: R  LAUCH                      MCFARLAND MUTUAL WATER CO        MCFARLAND               CA 93250
 INVESTIGATOR.: GA GUTER                      MCFARLAND MUTUAL WATER CO        MCFARLAND               CA 93250
                E  KARTINEN                   MCFARLAND MUTUAL WATER CO        MCFARLAND               CA 93250
                K  FRANK                      MCFARLAND MUTUAL WATER CO
 PROGRAM ID...: (PE-C61 )           DRINK WATER TREATMENT & GROUND WATER PROT
 MANDATE......: 10-99     NIPDWR
 CURR. RESULTS: LAB. STUDIES ON NITRATE REMOVAL WITH EXCHANGE AND REVERSE
                OSMOSIS ARE PARTIALLY COMPLETE PILOT PLANT ION EXCHANGE
                AND REVERSE OSMOSIS EQUIPMENT HAS BEEN INSTALLED AND STUDIES
                HAVE BEEN INITIATED.  DRAFT INTERIM REPORT RECEIVED.
 ORDIS CODES..: RECN-000789         SSIE-GMA  5096 2     EPA -R805900-01      ORD -RC10830-1080
                LABN-C824A-01T57    PE  -C61             LABT-EET
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  11-20-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC                             PREVIOUS- 06-28-80
 ABSTRACT.....: OBJECTIVE: THE PURPOSE OF THE PROPOSED WORK IS TO OBJECTIVELY EVALUATE THE GENERAL APPLICABILITY OF
                THREE TREATMENT PROCESSES FOR REMOVAL OF NITRATE FROM PUBLIC WATER SUPPLIES. THE PROCESSES ARE ION
                EXCHANGE, REVERSE OSMOSIS AND A COMBINATION PROCESS. THE EVALUATION WILL CONSIST OF USING
                LABORATORY SIZE AND FIELD-TEST EQUIPMENT TO ESTABLISH DESIGN CRITERIA AND OPERATING EXPERIENCE
                USEFUL FOR DESIGNING A FULL-SCALE PLANT OF APPROXIMATELY 1 MGD CAPACITY. APPROACH: R.O. AND ION
                EXCHANGE EQUIPMENT WILL BE DESIGNED AND ASSEMBLED FOR THE PURPOSE OF CONDUCTING A NUMBER OF
                EXPERIMENTS AND ENGINEERING TESTS TO DETERMINE THE TECHNICAL AND ECONOMIC FEASIBILITY OF WELL SITE
                TREATMENT OF WATER FOR NITRATE AND ARSENIC REMOVAL. EXPERIMENTS WILL BE CONDUCTED ON NATURAL AND
                SIMULATED WATERS.
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*PROJECT: 004659-OIL SLICK DISPERSAL MECHANICS

                  TASK =8623C-000680 **EPA=R805901-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 07/78 - 12/80 :   FY80
   EPA  OFFICER.: LT MCCARTHY           EPA/IERL - CINC                  FTS-8-340-6630
   INVESTIGATOR.: RC AHLERT             RUTGERS UNIV                     SCH OF EN/CHEM & BIOCHEM
                  JV HUNTER             RUTGERS UNIV                     SCH OF EN/CHEM & BIOCHEM
                  CE POLYMEROPOUL       RUTGERS UNIV                     SCH OF EN/CHEM & BIOCHEM
                  FA OSAMOR             RUTGERS UNIV                     SCH OF EN/CHEM & BIOCHEM
   MILESTONES...: 12/80 -FINAL REPORT RECEIVED
   PROGRAM ID...: (PE-623 )          EXTRACTION AND PROCESSING TECHNOLOGY -ENERGY
   MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                  20-10      AA FOR WATER AND WASTE MANAGEMENT
   CURR. RESULTS: LAB APPARATUS FABRICATED AND TESTED, AND SUPPLIES AND
                  EQUIPMENT HAVE BEEN ACQUIRED.
   ORDIS CODES..: RECN-004659           SSIE-GMA  5908 1      EPA -R805901-01      ORD -RB10C30-5080
                  PE  -623              LABT-EET
   PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - 10-01-77   UPDATED-  10-24-80
                  CATEGORY-RESEARCH     ACCESS-PUBLIC                              PREVIOUS- 06-28-80
   ABSTRACT.....: OBJECTIVE: EVALUATE OIL DISPERSANTS IN LABORATORY AQUARIUM WITH SIMULATED CHEMICAL VARIABLES; STUDY
                   SLICK SURFACE CONDITIONS WITH RESPECT TO SURFACE DESCRIPTION, DROPLET FORMATION AND MOTION.
                   APPROACH: UNDERTAKE SIMULATED SLICK CONDITIONS AND ENVIRONMENTAL VARIABLES ON LAB SITUATION AND
                   DOCUMENT RESULTS BY SAMPLING AND ANALYZING PROCEDURES AS APPROPRIATE.
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*PROJECT: 001663-SULFUR BUDGET IN POWER PLANT PLUMES - PROCESSING, MANAGEMENT AND
                 ANALYSIS OF PROJECT STATE DATA
                   TASK =G603A-AA-015 **EPA=R805918-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/75 - 06/81 :   FY79
   EPA  OFFICER.: CF WALTERS                EPA/ESRL - RTP                 FTS 8-629-3914
   INVESTIGATOR.: WV GILLANI                WASHINGTON UNIV                ST LOUIS                    MO 63130
   MILESTONES...: 05/79 -DATA REPORT AND MEETING
                  06/79 -REPORT ON DATA MANAGEMENT AND ANALYSIS
                  11/79 -COLD WEATHER PLUME FIELD STUDY (CWPS)
                  04/80 -REPORT ON CWPS
                  06/81 -DATA VOLUMES AND REPORT ON FIELD STUDIES OF SULFUR TRANSFORMATION AND TRANSPORT
   PROGRAM ID...: (PE-603 )            TRANS. AND FATE -AIR
   MANDATE......: 10-02     CLEAN AIR ACT
   CURR. RESULTS: TOOK PART IN TENNESSEE PLUME STUDY, SUMMER 1978;
                  PARTICIPATED IN MISSION CONTROL ACTIVITIES, PERFORMED
                  ON-SITE REDUCTION, DATA VALIDATION AND DATA VOLUME
                  PRODUCTION, DATA MANAGEMENT, DATA ANALYSIS AND PRODUCED
                  DATA VOLUME, EPA/EPRI PLUME STUDY, 1977.
   ORDIS CODES..: RECN-001663         SSIE-GMA  4560 3     EPA -R805918-01      ORD -RG10B30-1079
                  PE  -603            LABT-EPE
   PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  01-01-80
                  CATEGORY-RESEARCH   ACCESS-PUBLIC
   ABSTRACT.....: OBJECTIVE: THIS PROJECT CONTINUES THE TASKS PERFORMED DURING THE FIRST YEAR OF THE GRANT, I.E.
                   PROCESSING, MANAGEMENT AND ANALYSIS OF DATA COLLECTED AS PART OF THE AUGUST 1978 TENNESSEE PLUME
                   STUDY (PHASE I OF PROJECT STATE). SIMILAR RESPONSIBILITIES WILL BE UNDERTAKEN FOR THE COLD WEATHER
                   PLUME STUDY (PHASE II OF PROJECT STATE). APPROACH: SPECIFIC TASKS INCLUDE: (1) SOFTWARE
                   ORGANIZATION AND DEVELOPMENT. (2) DATA BASE SYSTEM DESIGN AND IMPLEMENTATION, (3) DATA ANALYSES AND
                   MODEL DEVELOPMENT, (4) PREPARATION FOR, AND PARTICIPATION IN, THE STATE COLD WEATHER PLUME STUDY
                   FIELD PROGRAM, AND (5) PRODUCTION OF AN AIRCRAFT DATA VOLUME.
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*PROJECT: 004345-DEVELOPMENT OF STANDARD METHODS FOR THE DETECTION OF ENTERIC VIRUSES IN
                 RAW AND TREATED WATER
                   TASK =AC38 -000013 **EPA=R805933-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/78 - 09/81 :   FY80
  EPA  OFFICER.: G  BERG                    EPA/EMSL - CINC
  INVESTIGATOR.: JL MELNICK                 BAYLOR UNIV                        FTS 8-684-7357
  MILESTONES...: 10/79 -INTERIM REPORT                                         COLLEGE OF MEDICINE
                 10/80 -INTERIM REPORT
                 09/81 -IMPROVED METHODS FOR CONCENT. AND DETECTING SMALL QUANTITIES OF VIRUSES IN WATE
                 09/81 -FINAL REPORT
  PROGRAM ID...: (PE-C38 )          MONITORING METHODS & SYSTEMS - WATER QUALITY
  FINAL OUTPUT.: IMPROVED METHODS FOR CONCENTRATING AND DETECTING SMALL
                 QUANTITIES OF VIRUSES IN WATERS.
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-15     SAFE DRINKING WATER ACT
                 20-11     DAA FOR WATER PLANNING AND STANDARDS
                 20-13     DAA FOR DRINKING WATER
                 30-99     VIROLOGY METHODS
  CURR. RESULTS: ACHIEVED EFFECTIVE RECOVERY OF ENTERIC VIRUSES USING
                 ANION-EXCHANGE RESIN MEMBRANE FILTER.
  ORDIS CODES..: RECN-004345         SSIE-GMA  5626 1      EPA -R805933-01      ORD -RA10B30-5080
                 LABN-A884 -13       PE  -C38              LABT-MTS
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 10-01-77   UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: QUANTITATIVE STUDIES WILL BE CONDUCTED TO DEVELOP METHODS FOR THE DETECTION OF SMALL
                  NUMBERS OF VIRUSES IN LARGE VOLUMES OF WATER. SPECIAL ATTENTION WILL BE GIVEN TO THE PRESENCE OF
                  VIRUSES IN SOLIDS IN WATERS. RADIOIMMUNOASSAY AND OTHER SEROLOGICAL TECHNIQUES WILL BE APPLIED TO
                  THE RAPID IDENTIFICATION OF VIRUSES IN WATERS. STUDIES WILL BE UNDERTAKEN IN CONJUNCTION WITH ASTM
                  TO DEVELOP STANDARDIZED TECHNIQUES FOR RECOVERING WATER-BORNE VIRUSES. APPROACH: 1. EXAMINE NEWLY
                  DEVELOPED ANION-EXCHANGE RESIN MEMBRANE FILTERS THAT ADSORB VIRUSES FROM WATER AT NEUTRAL PH LEVEL
                  AND DO NOT REQUIRE THE PRESENCE OF SALTS. 2. EVALUATE ENZYME-LINKED IMMUNOADSORBENT ASSAYS (ELISA)
                  AS A METHOD FOR RAPID IDENTIFICATION OF VIRUSES. 3. EXTEND THE COORDINATION AND PARTICIPATION IN
                  ASTM TESTS DIRECTED AT CHOOSING A METHOD FOR RECOVERING SMALL NUMBERS OF VIRUSES FROM LARGE VOLUMES
                  OF WATERS.
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37.1

U.S. ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF RESEARCH PROJECT** *(Please read reverse before completing)*	*Form Approved* *OMB No. 158-R0081* PROJECT NO.*(Do not use this space)* SSIE
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA R-805993-02

TITLE OF PROJECT Effect of Chlorites, Nitrites, Chloramines, Copper [and combinations] on Neonate and Pregnant Mice with Low G-6-PD Activity.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Gary S. Moore, Dr. P.H., Assistant Professor of Public Health
Edward J. Calabrese, Ph.D., Assistant Professor of Public Health

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Massachusetts, Division of Public Health, Amherst, MA 01003

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

There is evidence that G-6-PD deficiency predisposes persons to oxidant stress resulting in either increased erythrocyte destruction or MetHb formation, or both. There is additional evidence that pregnant mothers, fetuses in utero, and newborns may also be predisposed to oxidant stress. Further, nitrites, chloramines, and copper may exaggerate destruction and/or MetHb formation in blood cells exposed in vivo to chlorine dioxide or chlorite. The authors have a rodent model that is G-6-PD deficient [strain C57L/J from Jackson Laboratories in Bar Harbor, Maine] and are able to obtain timed pregnant females of this strain to study the effects of oxidants on G-6-PD deficient pregnant females and their offspring. Therefore, the objective of this research is to test the hypothesis that neonate mice born to dams with G-6-PD deficiency are at increased risk to methemoglobinemia and retarded growth rate from exposure to chlorites, chloramines, nitrites, and copper (alone and in combination) when compared with neonate mice of dams with elevated G-6-PD activity. The health effects of these compounds to newborn mice will be evaluated individually and in combination to test their their interactive effect.

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*PROJECT: 002162-FUEL ECONOMY AND EMISSIONS PERFORMANCE OF DIESEL AUTOMOBILES

                  TASK =GC01 -000501 **EPA=R805934-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/78 - 03/81 :   FY80
  EPA  OFFICER.: F  GABELE                EPA/ESRL - RTP                 FTS 8-629-3037
  INVESTIGATOR.: RE GIBBS                 STATE DEPT OF ENV CONSRV       ALBANY                     NY 12205
                 SM BYERS                 STATE DEPT OF ENV CONSRV       ALBANY                     NY 12205
  MILESTONES...: 09/78 -PROJECT INITIATION
                 06/80 -INTERIM REPORT
  PROGRAM ID...: (PE-C01 )          HEALTH EFFECTS/ TRANS SOURCES  -AIR
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: VEHICLES FOR TESTING ACQUIRED, ANALYTICAL EQUIPMENT
                 AND PROCEDURES WORKED OUT, AND A BIOASSAY PROTOCOL
                 ESTABLISHED.  IN NOV 79, A TEST PLAN WAS FORMULATED
                 AND TESTING COMMENCED.
  ORDIS CODES..: RECN-002162          SSIE-GMA  5198 2      EPA -R805934-02       ORD -RG10B31-1080
                 LABN-G712B-BC-053    PE  -C01              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS THE COLLECTION OF COMPREHENSIVE EMISSIONS AND FUEL
                  CONSUMPTION DATA FROM A SAMPLE OF APPROXIMATELY 20 CONSUMER OWNED DIESEL-POWERED AUTOMOBILES.
                  APPROACH: EACH VEHICLE WILL BE TESTED SEVERAL TIMES THROUGHOUT AN 18 MONTH MILEAGE ACCUMULATION
                  PHASE. SPECIAL EMPHASIS WILL BE PLACED UPON THE COLLECTION OF REGULATED EMISSIONS DATA AND
                  INFORMATION ABOUT THE CHEMICAL AND BIOASSAY CHARACTER OF DIESEL PARTICULATE EMISSIONS.

*PROJECT: 004735-A DATA ANALYSIS AND MANAGEMENT SYSTEM FOR PUBLIC WATER SUPPLIES

                  TASK =CC61 -S1T065 **EPA=R805994-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 05/78 - 05/80 :   FY80
  EPA  OFFICER.: RN CLARK                 EPA/MERL - CINC                FTS 8-684-7228
  INVESTIGATOR.: RA DEININGER             UNIV OF MICHIGAN               SCH OF PUBLIC HEALTH
  MILESTONES...: 08/78 -GRANT AWARDED
                 08/79 -INTERIM REPORT PUBLISHED
                 10/79 -CONTINUATION FUNDING PACKAGE PROCESSED
                 01/81 -PROJECT COMPLETED
                 05/81 -FINAL REPORT PUBLISHED
  PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  CURR. RESULTS: LIMITED BUT SUCCESSFUL DEMONSTRATIONS OF INTERCTIVE
                 DATA MANAGEMENT TECHNIQUES ACCOMPLISHED.
  ORDIS CODES..: RECN-004735          SSIE-GMA  5990 1      EPA -R805994-01       ORD -RC10B31-1080
                 PE  -C61             LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: DEVELOP A DATA ANALYSIS AND MANAGEMENT SYSTEM FOR USE AS A RESEARCH TOOL TO MANAGE WATER
                  SUPPLY RESEARCH DATA. APPROACH: NEW AND EXISTING DATA MANAGEMENT TECHNIQUES ARE BEING DEVELOPED AND
                  DEMONSTRATED FOR USE IN WATER SUPPLY RESEARCH.
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*PROJECT: 001980-TECHNIQUES FOR THE MEASUREMENT OF AEROSOL CARBON CONTENT

                  TASK =GC07 -000423 **EPA=R806005     ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/76 - 11/81 :   FY80
   EPA  OFFICER.: C  LEWIS                  EPA/ESRL - RTP                 FTS 8-629-3154
   INVESTIGATOR.: ES MACIAS                 WASHINGTON UNIV                CHEM DEPT
   MILESTONES...: 05/80 -DEVELOPMENT OF A COMPREHENSIVE SET OF TECHNIQUES TO QUANTITATIVEL
                  06/80 -COMPLETION OF PROJECT PERIOD
                  11/81 -FINAL REPORT ON THE DEVELOPMENT OF METHODS TO QUANTITATIVELY
   PROGRAM ID...: (PE-C07 )           CHARAC. & MEASUREMENT METHODS DEVEL - AIR
   MANDATE......: 10-02     CLEAN AIR ACT
   CURR. RESULTS: THE GRALE TECH. HAS BEEN SUCCESSFULLY USED FOR THE ANALYSIS
                  OF TISSUQUARTZ FILTERS AND HAS SHOWN PROMISE IN TESTS
                  USING THIN TEFLON FILTERS. A REFLECTANCE METHOD F
                  DETERMINING ELEMENTAL CARBON (SOOT) IN ATMOSPHERIC FINE-
                  PARTICULATE MATTER HAS BEEN DEV. LIMITED TESTING OF METHODS
                  ON FINE URBAN AERSOL COLLECTED IN ST. LOUIS
   ORDIS CODES..: RECN-001980         SSIE-GMA  2717 4      EPA -R806005        ORD -RG10830-1080
                  PE  -C07            LABT-EPE
   PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN   UPDATED-  06-28-80
                  CATEGORY-RESEARCH   ACCESS-PUBLIC
   ABSTRACT.....: OBJECTIVE: THE MAJOR OBJECTIVE OF THIS RESEARCH IS THE DEVELOPMENT OF INSTRUMENTS AND TECHNIQUES TO
                   DETERMINE THE CHEMICAL COMPOSITION OF CARBONACEOUS PARTICULATE MATTER WITH HIGHER ACCURACY AND IN
                   MORE DETAIL THAT IS PRESENTLY POSSIBLE. IT IS ANTICIPATED THAT ULTIMATELY THESE TECHNIQUES WILL BE
                   USED IN CONJUNCTION WITH XRF ANALYSIS OF TEFLON FILTERS TO PROVIDE INFORMATION ON MARS BALANCE.
                   APPROACH: THE TOTAL CARBON CONTENT IS DETERMINED BY THE GRALE TECHNIQUE USING PROTON INDUCED GAMMA
                   RAY EMISSION. THE VOLATILE/NON-VOLATILE/CARBONATE CARBON FRACTIONS ARE DETERMINED BY DIFFERENTIAL
                   HEATING FOLLOWED BY GRALE CARBON ANALYSIS OF THE REMAINING CARBON AFTER EACH HEATING STEP. THE SOOT
                   CARBON FRACTION IS DETERMINED BY REFLECTANCE ANALYSIS. THE BULK ORGANIC FRACTION IS DETERMINED FROM
                   THE DIFFERENTIAL THERMAL ANALYSIS RESULTS. EMPHASIS HAS BEEN PLACED ON MAKING THIS SET OF
                   MEASUREMENTS COMPATIBLE WITH DICHOTOMOUS SAMPLERS AND TEFLON FILTERS.
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*PROJECT: 005054-METHODOLOGY DEVELOPMENT FOR SITING POWER PLANTS

                  TASK =MC2N -000003 **EPA=R806016-02  ** (GRANT)
                  STARTING/ COMPLETION DATE : 08/78 - 06/81 :   FY80
  EPA  OFFICER.: EM PRESTON                 EPA/ERL - CORVALLIS              FTS 8-420-4636
  INVESTIGATOR.: JL DODD                    COLORADO STATE UNIV              NAT RESOURCE ECOLOGY LAB
  MILESTONES...: 04/80 -SECTIONS FOR 6TH INTERIM REPORT.  FINAL 9/80
                 10/80 -CHAPTERS FOR ZAPS REPORT.  FINAL 6/81
                 10/80 -CHAPTERS FOR SITING PROTOCOL.  FINAL 6/81
  PROGRAM ID...: (PE-C2N )           TRANS,FATE, AND EFFECTS OF ENERGY REL POLLUTANTS
  FINAL OUTPUT.: REPORT TO DEV. CAPACITY TO PREDICT ECOL. IMPACT OF
                 COAL-FIRED PLANT EMISSIONS BEFORE DAMAGE.
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-005054          SSIE-GHA  6083 1      EPA -R806016-02       ORD -RM10830-1080
                 PE  -C2N             LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  10-24-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 07-01-79
  ABSTRACT.....: OBJECTIVE: THE GLOBAL OBJECTIVE IS TO INTEGRATE INFORMATION FROM THE COLSTRIP, COAL-FIRED POWER
                  PLANT SUBPROJECTS INTO ECOSYSTEM FRAMEWORKS FOR GRASSLANDS, PINE WOODLANDS, AND AGRO-SYSTEMS.
                  SUCCESSFUL COMPLETION WILL RESULT IN A SERIES OF MODELS CAPABLE OF TESTING HYPOTHESES ABOUT
                  POTENTIAL IMPACTS OF AIR EMISSIONS FROM COAL-FIRED UPON A SPECIFIC LOCATION. PREDICTIVE MODELS WILL
                  BE INCORPORATED INTO THE ECOLOGICAL EFFECTS SITING PROTOCOL WHERE APPROPRIATE.
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*PROJECT: 004414-EVALUATION OF ACTIVATED BIO-FILTER WASTEWATER TREATMENT PROCESS AT
                 HELENA, MONTANA
                   TASK =CC35 -3D0209 ==EPA=R806047      == (GRANT)
                   STARTING/ COMPLETION DATE : 09/78 - 01/81 :    FY80
   EPA  OFFICER.: RC BRENNER               EPA/MERL - CINC                 FTS 8-684-7657
   INVESTIGATOR.: K  RAKNESS               W & I INC                       FORT COLLINS                CO 80521
                  R  NISBET                HELENA CITY PUB. UTIL DIV.      HELENA                      MT 59601
   MILESTONES...: 12/78 -DATA COLLECTION INITIATED
                  02/79 -HALF-DESIGN LOADING EVALUATION COMPLETED (PHASE I)
                  07/79 -INTERMEDIATE LOADING EVALUATION COMPLETED (PHASE II)
                  02/80 -FULL-DESIGN LOADING EVALUATION COMPLETED (PHASE III)
                  08/80 -FINAL REPORT SUBMITTED TO EPA PROJECT OFFICER
                  01/81 -FINAL REPORT PUBLISHED
   PROGRAM ID...: (PE-C35 )            WASTEWATER SYSTEMS CONTROL TECHNOLOGY
   MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
   CURR. RESULTS: DATA COLLECTION UNDER EXISTING PLANT LOADING CONDITIONS
                  (HALF DESIGN LOAD) COMPLETED 2/79 AS SCHEDULED.
                  PERFORMANCE RESULTS EXCELLENT, WITH AVERAGE EFFLUENT
                  BOD AND SUSPENDED SOLIDS CONCENTRATIONS FOR 3 MONTH
                  PERIOD OF 15 MG/L (91% REMOVAL) AND 10 MG/L (92% REMOVAL).
   ORDIS CODES..: RECN-004414          SSIE-GWA  5580 1       EPA -R806047         LABN-C611B-043
                  ORD -RC10830-1080    PE  -C35               LABT-EET
   PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED           ENTERED - UNKNOWN    UPDATED-  11-20-80
                  CATEGORY-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 01-01-80
   ABSTRACT.....: OBJECTIVE: THE PRIMARY OBJECTIVE OF THIS PROJECT IS TO DEVELOP OPERATING AND PERFORMANCE INFORMATION
                   FOR THE ACTIVATED BIO-FILTER (ABF) PROCESS LOADED AT THE MANUFACTURER'S RECOMMENDED DESIGN LOADING
                   CONDITIONS DURING THE MOST CRITICAL PERFORMANCE PERIOD OF THE YEAR, WINTER OPERATION. OTHER PROJECT
                   OBJECTIVES ARE TO DETERMINE THE RELATIVE CAPABILITIES OF THE FIRST-STAGE BIO-CELL TOWER AND THE
                   SECOND-STAGE SHORT-TERM AERATION BASIN IN SHARING THE ORGANIC LOADS TO THE ABF SYSTEM AND TO
                   DOCUMENT SYSTEM ENERGY REQUIREMENTS. APPROACH: THE RESEARCH APPROACH WAS TO OPERATE THE ABF SYSTEM
                   UNDER THREE DIFFERENT LOADING CONDITIONS: HALF-DESIGN LOAD (CURRENT PLANT LOAD), INTERMEDIATE LOAD,
                   AND FULL-DESIGN LOAD. AN ADEQUATE EVALUATION TIME PERIOD FOR EACH OPERATING CONDITION WAS
                   IMPLEMENTED TO ENSURE SYSTEM ACCLIMATION WAS ACHIEVED AT A CHANGED LOADING CONDITION AND TO
                   DETERMINE SYSTEM STABILITY AT THAT LOADING CONDITION. DURING EACH LOADING CONDITION, PLANT
                   PERFORMANCE, OPERATING CHARACTERISTICS, AND ENERGY REQUIREMENTS WERE DOCUMENTED BUT THE MAJOR
                   EMPHASIS WAS TO OPERATE THE SYSTEM SO AS TO OPTIMIZE SYSTEM BOD AND SUSPENDED SOLIDS REMOVAL
                   CAPABILITIES.
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*PROJECT: 004676-INVESTIGATION OF FLUID BED COMBUSTION OF MUNICIPAL SOLID WASTE

                 TASK =B624B-000674 **EPA=R806061-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 06/78 - 06/79 :   FY79
 EPA  OFFICER.: RA OLEXSEY                EPA/IERL - CINC                      FTS 8-684-4363
 INVESTIGATOR.: RH EUSTIS                 STANFORD UNIV                        INST FOR PLASMA RES
 MILESTONES...: 06/79 -FINAL REPORT RECEIVED
 PROGRAM ID...: (PE-624 )           CONSERVATION & UTIL. TECHNOLOGY ASSESSMENT- ENERGY
 FINAL OUTPUT.: A 300 HOUR TEST ED AT OPTIMUM CONDITIONS HAS BEEN COMPLETED
 MANDATE......: 10-99     (NON-NUCLEAR ENERGY) PL 93-577 (RCRA) PL 94-580
                10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                20-14     DAA FOR SOLID WASTE
 CURR. RESULTS: A 300 HR PARAMETRIC TEST AT OPTIMUM CONDITIONS COMPLETED.
                THESE TESTS WILL ESTABLISH DESIGN PARAMETERS FOR
                THE LONGER DURATION.
 ORDIS CODES..: RECN-004676          SSIE-GMA  5917         EPA -R806061-01       ORD -RB10B30-5079
                PE  -624             LABT-EET
 PROJ STATUS..: PROJECT-COMPLETED    INFO-UPDATED           ENTERED - 07-01-79    UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: FLUID BED COMBUSTION HAS BEEN SHOWN TO BE A PROMISING METHOD FOR OXIDATION OF
                 HETEROGENOUS FUELS AND THE PRESENT PROGRAM WILL INVESTIGATE THE COMBUSTION OF MUNICIPAL SOLID
                 WASTE. HEAT TRANSFER WILL BE ACCOMPLISHED BY WATER-COOLED TUBES IN THE BED AND FREEBOARD AREA, AND
                 COMBUSTION CHARACTERISTICS INCLUDING EMISSIONS WILL BE MONITORED. APPROACH: THE EXPERIMENTS WILL BE
                 MADE IN A 7 SQ. FT. FLUID BED COMBUSTOR LOCATED AT COMBUSTION POWER COMPANY IN MENLO PARK,
                 CALIFORNIA. AFTER PRELIMINARY EXPERIMENTS TO OPTIMIZE OPERATING PARAMETERS, TWO 150 HOUR TESTS WILL
                 BE CONDUCTED.
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*PROJECT: 001050-STUDY OF MICROBIAL AEROSOLS EMITTED FROM WATER RECLAMATION PLANT

                   TASK =DC27 -1C0004 **EPA=R806062      ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/78 - 03/81 :   FY80
  EPA  OFFICER.: W  JAKUBOWSKI           EPA/MERL - CINC                         FTS 8-684-7385
  INVESTIGATOR.: KF FANNIN               I I T RES INST                          CHICAGO                   IL 60616
  MILESTONES...: 12/79 -COMPLETION OF PRE-OPERATIONAL DATA COLLECTION - INTERIM REPORT
                 12/80 -COMPLETION OF POST-OPERATIONAL DATA COLLECTION
                 03/81 -ASSESSMENT OF CONTRIBUTION OF AN ACTIVATED SLUDGE PLANT TO MICROBIOLOGIC AIR QU
  PROGRAM ID...: (PE-C27 )            HEALTH EFFECTS - WATER QUALITY
  FINAL OUTPUT.: ASSESSMENT OF CONTRIBUTION OF AN ACTIVATED SLUDGE
                 PLANT TO MICROBIOLOGIC AIR QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 20-12     DAA FOR WATER PROGRAM OPERATIONS
                 20-R05    EPA REGION V
  CURR. RESULTS: PROJECT MANUAL FOR TRAINING OF FIELD CREW PERSONNEL
                 DEVELOPED.  AEROSOL SAMPLING BEFORE PLANT START-UP
                 COMPLETED.  THIRD PRE-OPERATIONAL SAMPLING PERIOD
                 WILL BE COMPLETED EARLY NOV. 79.
  ORDIS CODES..: RECN-001050          SSIE-GMA  5144 2     EPA -R806062         ORD -RD10830-5080
                 LABN-0607A-006B      PE  -C27             LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED         ENTERED - 10-01-77   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DETERMINE THE OCCURRENCE OF MICROORGANISMS IN AEROSOLS IN THE VICINITY OF THE O'HARE
                  WATER RECLAMATION PLANT (OWRP) IN DES PLAINES, ILLINOIS DURING THE FALL AND SPRING MONTHS PRECEDING
                  AND FOLLOWING INITIATION OF PLANT OPERATIONS. APPROACH: USING SLIT SAMPLERS, MULTI-STAGED IMPACTORS
                  AND LARGE VOLUME AIR SAMPLERS, SAMPLES WILL BE COLLECTED AT ONE UPWIND AND THREE DOWNWIND SITES
                  FROM THE AERATION TANKS. BACTERIAL, COLIPHAGE AND ANIMAL VIRUS AEROSOL CONCENTRATIONS WILL BE
                  DETERMINED BEFORE AND AFTER THE PLANT IS PLACED IN OPERATION.


*PROJECT: 006685-EXPERIMENTAL STUDY OF AEROSOL FORMATION MECHANISMS IN A CONTROLLED
                 ATMOSPHERE
                   TASK =GC2Q -000639 **EPA=R806070      ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/78 - 11/81 :   FY80
  EPA  OFFICER.: L  STOCKBURGER          EPA/ESRL - RTP                          FTS-629-2254
  IAG  OFFICER.:    UNKNOWN              US NASA                                 JET PROP LAB
  INVESTIGATOR.: DL FOX                  UNIV OF NORTH CAROLINA                  ENV ENG & SCI DEPT
  MILESTONES...: 07/80 -ANALYZE SO2-C3H6-NOX DATA
                 10/80 -ANALYZE ORGANIC AEROSOL DATA
  PROGRAM ID...: (PE-C2Q )            MEASURE SYS & INSTR. DEVEL FOR ENERGY REL POLL
  MANDATE......: 40-99
  ORDIS CODES..: RECN-006685          SSIE-GMA  6852       EPA -R806070         ORD -RG10830-4080
                 PE  -C2Q             LABT-EPE
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - 10-24-80   UPDATED-  10-24-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DETERMINE EFFECTS OF VOLATILE AEROSOL SPECIES ON AEROSOL LIGHT EXTINCTION AND VISIBILITY.
                  APPROACH: GENERATE TEST AEROSOLS IN LARGE OUTDOOR CHAMBER AND MEASURE FINE PARTICULATE MASS
                  CONCURRENTLY WITH IN SITU MEASUREMENTS.
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*PROJECT: 004415-FACTORS AFFECTING ACTIVATED SLUDGE BULKING

                 TASK =CC35 -3D0217 **EPA=R806107      ** (GRANT)
                 STARTING/ COMPLETION DATE : 08/78 - 12/81 :   FY80
  EPA  OFFICER.: RF LEWIS                  EPA/MERL - CINC                FTS-8-684-7644
  INVESTIGATOR.: D  JENKINS                UNIV OF CALIFORNIA             SAN ENGR. RES LABS
  MILESTONES...: 12/80 -EXPERIMENTAL WORK COMPLETED
                 06/81 -FINAL REPORT SUBMITTED BY EPA PROJECT OFFICER
                 11/81 -FINAL REPORT PUBLISHED
  PROGRAM ID...: (PE-C35 )           WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  ORDIS CODES..: RECN-004415           SSIE-GMA  5586 1      EPA -R806107          PE  -C35
                 LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THE RESEARCH PROJECT IS TO DETERMINE THE INFLUENCE OF FACTORS SUCH AS
                  DISSOLVED OXYGEN, SUBSTRATE CONCENTRATION, AND REACTOR COMPARTMENTALIZATION ON ACTIVATED SLUDGE
                  BULKING. APPROACH: CONTINUOUS FLOW ACTIVATED SLUDGE UNITS WILL BE OPERATED ON DOMESTC SEWAGE AT
                  VARIOUS LOADINGS AND VARIOUS MIXED LIQUOR DISSOLVED OXYGEN CONCENTRATIONS AND IN COMPLETELY MIXED
                  OR COMPARTMENTALIZED REACTORS. THE EFFECT ON BULKING WILL BE ASSESSED BY MEASUREMENT OF ZONE
                  SETTLING VELOCITY, SLUDGE VOLUME INDEX, FILAMENT NUMBERS, AND FILAMENT LENGTH.
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*PROJECT: 003784-EFFECTS OF POLYCHLORINATED BIPHENYLS ON GREAT LAKES PHYTOPLANKTON

                TASK =NC30 -000043 **EPA=R806126-01  ** (GRANT)
                STARTING/ COMPLETION DATE : 09/78 - 08/80 :   FY80
 EPA  OFFICER.: VJ BIERMAN              EPA/ERL - DULUTH                FTS 8-226-7811
 INVESTIGATOR.: G  RHEE                 STATE DIV OF LABS/RES           DEPT OF HLTH
 MILESTONES...: 09/79 -ANNUAL REPORT
                09/80 -DRAFT FINAL REPORT
                09/81 -ECOLOGICAL RESEARCH SERIES REPORT
 PROGRAM ID...: (PE-C30 )           GREAT LAKES PROGRAM
 FINAL OUTPUT.: ECOLOGICAL RESEARCH SERIES REPORT
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
 ORDIS CODES..: RECN-003784         SSIE-GMA  4941 2      EPA -R806126-01      ORD -RN10B30-1080
                PE  -C30            LABT-EPE
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 10-01-77   UPDATED-  06-28-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 COMMENT......: OBJ. OF PROJECT TO MEASURE BIOACCUMULATION OF PCBS IN
                GR. LAKES PHYTOPLANKTON AND EFFECTS OF PCBS ON NUTRIENT
                UPTAKE AND GROWTH KINETICS.
 ABSTRACT.....: THE OBJECTIVE OF THE PROJECT IS TO MEASURE THE BIOACCUMULATION OF PCBS IN GREAT LAKES PHYTOPLANKTON
                 AND THE EFFECTS OF PCBS ON NUTRIENT UPTAKE AND GROWTH KINETICS. POLYCHLORINATED BIPHENYLS (PCBS)
                 HAVE BEEN USED WIDELY IN INDUSTRY AS PLASTICIZERS, DIELECTRICS, HEAT TRANSFER FLUIDS, ETC. DUE
                 MAINLY TO THEIR MOLECULAR RECALCITRANCE TO DEGRADATION, THEY ARE WIDESPREAD IN ENVIRONMENTS.
                 ENVIRONMENTAL PROBLEMS WITH THESE COMPOUNDS ARISE FROM THEIR ACCUMULATION IN AND TOXICITY TO LIVING
                 ORGANISMS INCLUDING PHYTOPLANKTON. BIOACCUMULATION IS A MAJOR MECHANISM BY WHICH THESE TOXICANTS
                 MANIFEST THEIR BIOLOGICAL EFFECTS, SINCE THEIR CONCENTRATION IN NATURAL WATERS IS USUALLY LOWER
                 THAN THE TOXIC LEVELS IN LABORATORIES. IT WILL BE INVESTIGATED IN CONTINUOUS CULTURE EXPERIMENTS
                 WHETHER THE ACCUMULATION IS RELATED TO LIPID CONTENTS OF ORGANISMS, ESPECIALLY IN UNICELLULAR
                 ALGAE, OR WHETHER LIPID CONTENTS ARE THUS RELATED TO DIFFERENTIAL TOXICITY IN VARIOUS ALGAL
                 SPECIES. IN RELATION TO THE PARTITION OF PCBS TO THE LIPID PHASE, IT WILL BE DETERMINED IF THIS
                 PARTITION INTERFERES WITH NUTRIENT TRANSPORT BY ALTERING MEMBRANE CHARACTERISTICS AND HOW THE
                 PARTITION AFFECTS GROWTH AND NUTRIENT UPTAKE KINETICS. UNDERLYING MECHANISMS OF THE EFFECT ON
                 GROWTH WILL ALSO BE INVESTIGATED. A MAJOR MECHANISM BY WHICH RECALCITRANT TOXICANTS ARE REMOVED
                 FROM WATER COLUMN IS THEIR PARTITION TO ORGANIC PARTICULATE MATTER AND THEIR SUBSEQUENT SINKING TO
                 BOTTOM SEDIMENTS. IT IS KNOWN THAT DDT AND DIELDRIN CHANGE CELL MORPHOLOGY AND TEND TO PROMOTE THE
                 FORMATION OF AGGREGATES IN TEST ORGANISMS. THUS, EFFECTS OF PCBS ON MORPHOLOGICAL CHANGES, SIZE
                 DISTRIBUTION, CULTURE CHARACTERISTICS SUCH AS CLUMPING AND SINKING RATES WILL BE DETERMINED. THIS
                 WORK WILL EXTENSIVELY USE CHEMOSTATS AND TURBIDOSTATS. EXPERIMENTAL ORGANISMS ARE ASTERIONELLA
                 FORMOSA AND MICROCYSTIS SP. ISOLATED FROM THE GREAT LAKES ALONG WITH SCENEDESMUS SP. WHICH HAS BEEN
                 EXTENSIVELY INVESTIGATED IN OUR LABORATORY AND IS COMMON IN THE GREAT LAKES. TWO ISOMERS OF PCBS
                 (2,4'-DICHLORO AND 2,2',5-TRICHLORO) WILL BE EMPLOYED AS TOXICANTS.
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*PROJECT: 004752-DETERMINATION OF MINIMAL HUMAN INFECTIOUS DOSE OF AN ENTEROVIRUS IN
                 DRINKING WATER
                   TASK =DC27 -180006 **EPA=R806173     ** (GRANT)
                   STARTING/ COMPLETION DATE : 01/79 - 01/80 :   FY80
                                                                           FTS 8-684-7218
   EPA  OFFICER.: EW AKIN                   EPA/HERL - CINC                CINCINNATI                   OH 45219
   INVESTIGATOR.: GM SCHIFF                 CHRIST HOSP MED RES INST
   MILESTONES...: 01/80 -DATA ON NUMBER OF VIRAL UNITS REQUIRED TO INFECT YOUNG ADULTS
   PROGRAM ID...: (PE-C27 )           HEALTH EFFECTS - WATER QUALITY
   FINAL OUTPUT.: DATA ON NUMBER OF VIRAL UNITS REQUIRED TO INFECT
                  YOUNG ADULTS.
   MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                  10-15     SAFE DRINKING WATER ACT
                  20-12     DAA FOR WATER PROGRAM OPERATIONS
                  20-13     DAA FOR DRINKING WATER
   CURR. RESULTS: PRELIMINARY RESULTS INDICATE THAT AS FEW AS 10 PFU OF
                  ECHOVIRUS 12 CAN CAUSE INFECTION IN A SIGNIFICANT
                  PERCENTAGE OF EXPOSED AND SUSCEPTIBLE MALE ADULTS.
   ORDIS CODES..: RECN-004752          SSIE-GMA  5771 1      EPA -R806173         ORD -RD10830-5080
                  LABN-D607A-017A      PE  -C27              LABT-OHR
   PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 07-01-79   UPDATED-  06-28-80
                  CATEGORY-RESEARCH    ACCESS-PUBL'C
   ABSTRACT.....: OBJECTIVE: TO DETERMINE THE MIMINAL INFECTIOUS DOSE OF ECHOVIRUS 12 IN DRINKING WATER IN SUSCEPTIBLE
                    ADULT MALE VOLUNTEERS. APPROACH: TO INOCULATE VOLUNTEERS WITH VARYING DOSES OF ECHOVIRUS 12
                    SUSPENDED IN DRINKING WATER AND FOLLOW THE VOLUNTEERS FOR EVIDENCE OF INFECTION (VIRAL SHEDDING AND
                    ANTIBODY RESPONSE) AND/OR ILLNESS.


*PROJECT: 004736-INTERACTIONS AMONG RECENT LEGISLATION AFFECTING PUBLIC WATER SUPPLY

                   TASK =CC61 -S1T066 **EPA=R806209     ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/78 - 01/80 :   FY80
                                                                           FTS 8-684-7228
   EPA  OFFICER.: RN CLARK                  EPA/MERL - CINC                DEPT. GEO.& URBAN STUDIES
   INVESTIGATOR.: H  SCHWARTZ               CLARK UNIV
   MILESTONES...: 09/79 -INTERIM REPORT
                  10/79 -CONTINUATION PACKAGE
                  01/81 -FINAL REPORT
   PROGRAM ID...: (PE-C61 )           DRINK WATER TREATMENT & GROUND WATER PROT
   MANDATE......: 10-15     SAFE DRINKING WATER ACT
   ORDIS CODES..: RECN-004736          SSIE-GMA  5884 1      EPA -R806209         ORD -RC10830-1080
                  PE  -C61             LABT-EET
   PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                  CATEGORY-RESEARCH    ACCESS-PUBLIC                              PREVIOUS- 06-28-80
   ABSTRACT.....: OBJECTIVE: TO STUDY RECENT LEGISLATION AND IDENTIFY AREAS OF COMMON JURISDICTION, OVERLAPPING
                    CONCERNS, AND POTENTIAL IMPLEMENTATION, AMBIGUITIES OR HINDERANCES. APPROACH: THE SAFE DRINKING
                    WATER ACT AND FEDERAL WATER POLLUTION CONTROL ACT (AND ITS AMENDMENT, THE CLEAN WATER ACT) WILL BE
                    EXAMINED IN PARTICULAR WITH SOME EMPHASIS ON RESOURCE CONSERVATION RECOVERY ACT AND THE TOXIC
                    SUBSTANCES CONTROL ACT. TASKS WILL INCLUDE A REVIEW OF AGENCY GUIDELINES, REGULATION AND EMPHASIS
                    WILL BE PLACED ON ISSUES AND IMPACTS RELATING IMPROVING THE QUALITY OF MUNICIPAL WATER SUPPLY.
                    APPROPRIATE CASE STUDIES WILL BE UTILIZED.
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*PROJECT: 005355-ASSESSMENT OF ENERGY-RELATED TOXICANT STRESS IN AN ENGINEERED ECOSYSTEM

                  TASK =N831 -000013 **EPA=R806214-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/78 - 03/81 :   FY79
 EPA  OFFICER.: TH ROUSH                EPA/ERL - DULUTH                        FTS 8-783-9520
 INVESTIGATOR.: RH BOLING               MICHIGAN STATE UNIV                     ZOOLOGY DEPT
 MILESTONES...: 03/80 -REPORT ON FIRST YEAR OF TESTING
                03/81 -REPORT ON SECOND YEAR OF TESTING
 PROGRAM ID...: (PE-831 )           EFFECTS OF ENERGY REL POLLUTANTS
 MANDATE......: 30-99     AQUATIC TOXICOLOGY
 CURR. RESULTS: THE ENGINEERING HARDWARE HAS BEEN INSTALLED, THE
                BASELINE SAMPLING AND ANALYSIS CONDUCTED,
                AND THE FIRST SEASON OF TOXICANT INTRODUCTION
                AND MONITORING HAS BEEN CONDUCTED.
 ORDIS CODES..: RECN-005355            SSIE-GMA  6337        EPA -R806214-01       ORD -RN10830-3079
                PE  -831               LABT-EPE
 PROJ STATUS..: PROJECT-ACTIVE         INFO-UPDATED          ENTERED - 01-01-80    UPDATED-  06-28-80
                CATEGORY-RESEARCH      ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DETERMINE THE ENVIRONMENTAL PARAMETERS TO MEASURE TO BETTER ASSESS THE EFFECTS OF A
                 TOXICANT ON AN AQUATIC ECOSYSTEM. APPROACH: THE ECOSYSTEM IS HELD IN A DESIRABLE RANGE BY
                 MANIPULATION OF PHYSICAL VARIABLES. A TOXICANT IS INTRODUCED AND THE EFFECT ON THE BIOLOGICAL
                 COMMUNITIES IS DETERMINED.
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*PROJECT: 004778-STUDY OF DENTAL EFFECTS IN A POPULATION EXPOSED TO H2O FLUORIDE LEVELS
                 IN "CRITICAL" ZONE
                   TASK =DC60 -2C0000 **EPA=R806238-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 02/79 - 12/80 :   FY80
  EPA  OFFICER.: JB LUCAS                EPA/HERL - CINC           FTS-8-684-7429
  INVESTIGATOR.: CT SMITH                UNIV OF TEXAS             SAN ANTONIO            TX 78284
                 VA SEGRETO              UNIV OF TEXAS             SAN ANTONIO            TX 78284
                 DE JOHNSON              SOUTHWEST RESEARCH INST   SAN ANTONIO            TX 78284
  MILESTONES...: 03/79 -SELECTION OF STUDY SITES
                 04/79 -DEVELOP RECRUITMENT PROTOCOL
                 08/79 -PRE-TEST PROTOCOL DEVELOPED
                 08/80 -PERFORM SAMPLING AND COLLECT CHEMICAL DATA
                 10/80 -DATA ANALYSIS
                 12/80 -PREPARE FINAL REPORT
                 12/80 -PROVIDE NEW DOSE RESPONSE INFORMATION ON PRESENT FLUORIDE STANDARD
  PROGRAM ID...: (PE-C60 )           HEALTH EFFECTS  - DRINKING WATER
  FINAL OUTPUT.: PROVIDE NEW DOSE RESPONSE INFORMATION ON PRESENT
                 FLUORIDE STANDARD.
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  ORDIS CODES..: RECN-004778         SSIE-GMA  5774 1      EPA -R806238-02       ORD -RD10B30-1080
                 LABN-D823B-024C     PE  -C60              LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: IN THE PROPOSED STUDY, INFORMATION REGARDING MOTTLING AND DISCOLORATION OF TEETH WILL BE
                   COMPARED TO FLUORIDE LEVELS IN THE PUBLIC WATER SUPPLIES OF SEVERAL COMMUNITIES. VOLUNTEER
                   PARTICIPANTS WILL BE RECRUITED THROUGH PUBLIC SCHOOLS IN EIGHT COMMUNITIES HAVING NATURALLY
                   OCCURRING HIGH FLUORIDE LEVELS. STUDENTS FROM GRADES 1-4 (6-9 YRS OF AGE) AND WHOSE FAMILIES
                   UTILIZE WATER DELIVERED BY THE COMMUNITY WATER SYSTEM WILL SERVE AS A SOURCE OF VOLUNTEERS.
                   APPROACH: AN ORAL EXAMINATION TO DETERMINE LEVEL OF MOTTLING, DISCOLORATION OF TEETH AND A DMFS
                   SURVEY WILL BE ADMINISTERED TO EACH PARTICIPANT AND A URINE SAMPLE WILL BE COLLECTED FOR FLUORIDE
                   ANALYSIS. INFORMATION REGARDING PERSONAL AND HEALTH BACKGROUND WILL BE OBTAINED WITH SPECIALLY
                   DESIGNED QUESTIONNAIRE FORMS. AN OPINION SURVEY REGARDING PERCEPTION OF PROBLEMS RELATED TO TEETH
                   MOTTLING AND DISCOLORATION WILL ALSO BE ADMINISTERED BY USE OF A SECOND QUESTIONNAIRE FORM. DATA
                   RESULTING FROM ORAL EXAMINATIONS, ANALYSES OF URINE SAMPLES, BACKGROUND HEALTH AND PERSONAL
                   INDICATORS, AND OPINIONS REGARDING THE PROBLEMS OF MOTTLING AND DISCOLORATION WILL BE COMPARED TO
                   FLUORIDE LEVELS IN THE VARIOUS COMMUNITY WATER SUPPLIES TO DETERMINE THE SPECIFIC LEVEL OF FLUORIDE
                   AT WHICH PROBLEMS OCCUR.
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*PROJECT: 000583-WATER CONSERVATION AND THE DROUGHT

                  TASK =CC35 -04T017 **EPA=R806262-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/78 - 05/80 :   FY80
   EPA  OFFICER.: JW ENGLISH              EPA/MERL - CINC                  FTS 8-684-7613
   INVESTIGATOR.: JS KOYASAKO             STATE DEPT OF WAT RES            SACRAMENTO              CA 95802
   MILESTONES...: 05/80 -FINAL REPORT PUBLISHED 08-80
   PROGRAM ID...: (PE-C35 )             WASTEWATER SYSTEMS CONTROL TECHNOLOGY
   MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                  20-R09    EPA REGION IX
   CURR. RESULTS: TREND OF DECREASED ENERGY USE FOR SEWER SYSTEM WITH
                  REDUCTION IN WASTEWATER FLOW APPEARS TO BE DEVELOPING.
                  NO APPARENT DEVELOPING OF SIMILAR TREND FOR ENERGY OR
                  CHEMICAL USES FOR TREATMENT PLANTS.
                  DRAFT FINAL REPORT COMPLETED AND REVIEWED 3/80.
   ORDIS CODES..: RECN-000583          SSIE-GMA  5110 2      EPA -R806262-01      ORD -RC10830-5080
                  LABN-C822B-04T17     PE  -C35              LABT-EET
   PROJ STATUS..: PROJECT-COMPLETED    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                  CATEGORY-RESEARCH    ACCESS-PUBLIC                              PREVIOUS- 06-28-80
   ABSTRACT.....: OBJECTIVE: OBJECTIVE IS TO FOCUS WATER RESOURCES PLANNING TOWARDS MORE EFFICIENT AND EFFECTIVE WATER
                   MANAGEMENT PROGRAMS FOR BOTH DROUGHT AND NON-DROUGHT PERIODS. STUDY ACCOMPLISHMENTS WILL BE TO
                   IDENTIFY THE IMPACTS OF IMPLEMENTED WATER CONSERVATION MEASURES, REPORT ON THE STATUS OF THESE
                   CONSERVATION MEASURES AND ATTEMPT TO PREDICT LONG-TERM IMPACTS, IF ANY. APPROACH: A DIRECT PRODUCT
                   OF THIS PROJECT WILL BE A REPORT WITH CONCLUSIONS OF PRESENT IMPACTS OF WATER CONSERVATION ON WATER
                   SUPPLY AND WASTEWATER MANAGEMENT PRACTICES AND RECOMMENDATIONS ABOUT FUTURE IMPACTS, FURTHER
                   ACTIONS AND POLICY DIRECTION. END PRODUCTS WILL BE DEVELOPMENT OF SIGNIFICANT INDICATORS ON IMPACTS
                   TO FUTURE COSTS OF WATER SUPPLIES AND SIZE AND POTENTIAL REDUCTIONS OF TREATMENT PLANTS BROUGHT
                   ABOUT BY DECREASED CAPACITY.
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*PROJECT: 001688-INTERPRETATION OF RAPS ATMOSPHERIC ELEMENTAL CONCENTRATION DATA

                  TASK =G712B-BB-081 **EPA=R806263-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/78 - 09/81 :   FY79
EPA  OFFICER.: MJ COURTNEY                EPA/ESRL - RTP
INVESTIGATOR.: GE GORDON                  UNIV OF MARYLAND                      DEPT OF CHEM
PROGRAM ID...: (PE-712 )             CHARAC. & MEASUREMENT METHODS DEVEL - AIR
MANDATE......: 10-02     CLEAN AIR ACT
ORDIS CODES..: RECN-001688          SSIE-GMA  5170 1       EPA -R806263-01        ORD -RG10830-1079
               LABN-G603A-AA-136    PE  -712               LABT-EPE
PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED           ENTERED - UNKNOWN      UPDATED-  10-01-79
               CATEGORY-RESEARCH    ACCESS-PUBLIC
ABSTRACT.....: IN PREVIOUS STUDIES, WORKERS AT THE UNIVERSITY OF MARYLAND HAVE MEASURED CONCENTRATIONS OF ABOUT
                THIRTY ELEMENTS ATTACHED TO PARTICLES RELEASED FROM MAJOR AIR POLLUTION SOURCES. THEY ALSO
                DEVELOPED METHODS FOR RESOLVING THE OBSERVED CONCENTRATION PATTERNS OF URBAN AEROSOLS INTO
                CONTRIBUTIONS FROM THOSE SOURCES. THOSE METHODS ARE CHEMICAL ELEMENT BALANCES AND FACTOR ANALYSIS.
                IN PREVIOUS EPA-SUPPORTED STUDIES BY OTHER WORKERS, ABOUT 34,000 SIZE-SEGREGATED AIR FILTER SAMPLES
                WERE COLLECTED OVER A TWO-YEAR PERIOD IN AND NEAR ST. LOUIS, MO, AS PART OF THE REGIONAL AIR
                POLLUTION STUDY (RAPS). THOSE SAMPLES WERE ANALYZED FOR ABOUT 25 ELEMENTS BY X-RAY FLUORESCENCE
                (XRF). IN THIS PROJECT, THE MARYLAND GROUP IS APPLYING CHEMICAL ELEMENT BALANCES AND FACTOR
                ANALYSES TO RESOLVE THE ST. LOUIS DATA INTO CONTRIBUTIONS FROM VARIOUS MAJOR SOURCES. THIS STUDY
                ALSO INCORPORATES OTHER TYPES OF RAPS DATA, INCLUDING METEOROLOGICAL DATA, SOURCE-EMISSIONS
                INVENTORIES AND MEASUREMENTS OF POLLUTANT GASES, TO PROVIDE A COMPREHENSIVE INTERPRETATION OF THE
                ST. LOUIS DATA SET. SINCE XRF ANALYSES MISS SOME ELEMENTS THAT ARE IMPORTANT FOR THE
                INTERPRETATIONS, SELECTED SAMPLES ARE BEING ANALYZED FOR ADDITIONAL ELEMENTS.
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*PROJECT: 004769-ORGANIC AND ORGANOTIN COMPOUNDS LEACHED FROM PVC AND CPVC WATER PIPES

                 TASK =D823B-012C00 **EPA=R806275-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 10/78 - 10/80 :   FY79
  EPA  OFFICER.: WS ULMER                EPA/HERL - CINC                    FTS 8-684-7459
  INVESTIGATOR.: EA BOETTNER             UNIV OF MICHIGAN                   SCH OF PUBLIC HEALTH
  MILESTONES...: 03/80 -COMPLETION OF PHASE I:  DEVELOPMENT OF METHODOLOGY
                 10/80 -DEV. AND APPLICAT. OF METHODS FOR ORGANICS AND ORGANOTINS
  PROGRAM ID...: (PE-823 )            HEALTH EFFECTS  -DRINKING WATER
  FINAL OUTPUT.: METHODS FOR ORGANICS AND ORGANOTIN
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  CURR. RESULTS: LITERATURE SEARCH FOR METHODOLOGY, PREPARATION OF
                 EXTRACTS OF PLASTIC SAMPLES, AND CHARACTERIZATION
                 OF FIVE TIN COMPOUNDS USED AS STABILIZERS.
                 EXTRACTION, GC-MS, & FLAMELESS AA METHODS DEVELOPED
                 FOR ISOLATION & QUANTITATION OF METHYL & BUTYL TINES
                 IN AQUEOUS SOLUTIONS.  METHODOLOGY PRESENTED IN
                 SEMINAR 3/31/80.
  ORDIS CODES..: RECN-004769          SSIE-GMA  5781       EPA -R806275-01      ORD -RD10B30-1079
                 PE  -823             LABT-OHR
  PROJ STATUS..: PROJECT-ACTIVE       INFO-UPDATED         ENTERED - 07-01-79   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DETERMINE WHETHER ORGANOTIN COMPOUNDS ARE INTRODUCED INTO POTABLE WATER SUPPLIES WHEN
                  USING POLYVINYL CHLORIDE AND CHLORINATED POLYVINYL CHLORIDE PIPE CONTAINING TIN COMPOUNDS AS
                  STABILIZERS. A SECONDARY OBJECTIVE IS TO DETERMINE WHAT CHEMICALS OTHER THAN TIN COMPOUNDS ARE
                  LEACHED FROM SUCH PIPING INTO THE WATER SUPPLY. APPROACH: A TWO-STEP APPROACH IS BEING USED. FIRST,
                  THE ANALYTICAL METHODOLOGY, CAPABLE OF DETERMINING THE EXTRACTED CHEMICALS IN THEIR COMPOUND FORM
                  AT THE LEVELS AT WHICH THEY ARE EXPECTED TO BE PRESENT, WILL BE ESTABLISHED. THIS METHODOLOGY WILL
                  THEN BE INCORPORATED IN A SYSTEM TO DETERMINE THE AMOUNTS OF ORGANOTINS AND OTHER COMPOUNDS IN
                  WATER SUPPLIES USING PVC AND CPVC PIPING.
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*PROJECT: 004852-AN AQUATIC ECOSYSTEM MODELING PACKAGE FOR MINICOMPUTERS

                TASK =KC28 -414A00 **EPA=R806299-02  ** (GRANT)
                STARTING/ COMPLETION DATE : 12/78 - 12/80 :   FY80
EPA  OFFICER.: TO BARNWELL              EPA/ERL - ATHENS              FTS 8-250-3175
INVESTIGATOR.: RA PARK                  RENSSELAER POLY INST          GEOLOGY DEPT
               MR BUNGAY                RENSSELAER POLY INST          GEOLOGY DEPT
               JE LEONARD               RENSSELAER POLY INST          GEOLOGY DEPT
MILESTONES...: 08/79 -INTERIM REPORT
               12/80 -FINAL REPORT - MANUAL/SENSITIVITY/TESTING AS POSSIBLE
PROGRAM ID...: (PE-C28 )         TRANS. AND FATE  - WATER QUALITY
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
CURR. RESULTS: CLEANER SUCCESSFULLY INSTALLED ON PDP 11/03 MINICOMPUTER
               AND REPRESENTS COMPLETE REPROGRAMMING FROM MS. CLEANER.
               PRELIMINARY DOCUMENTATION FOR SYSTEM IS AVAILABLE.
               CALIBRATION UNDERWAY ON OLIGOTROPHIC, MESATROPHIC,
               EUTROPHIC AND MARL LAKES.
ORDIS CODES..: RECN-004852         SSIE-GMA  5821 1      EPA -R806299-02      ORD -RK10830-1080
               LABN-K609A-414A00   PE  -C28              LABT-EPE
PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 07-01-79   UPDATED-  06-28-80
               CATEGORY-RESEARCH   ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVES: AN EFFICIENT, FAIL-SAFE PACKAGE OF ENVIRONMENTAL-SPECIFIC VERSIONS OF THE AQUATIC
                ECOSYSTEM MODEL CLEANER WILL BE DEVELOPED TO AID IN THE ENVIRONMENTAL MANAGEMENT OF FRESHWATER
                LAKES AND RESERVOIRS. THE PACKAGE WILL INCLUDE A SERIES OF STREAMLINED, SPECIAL-PURPOSE MODELS
                (MICRO-CLEANER) PROGRAMMED TO RUN ON A MINICOMPUTER. IT WILL ALSO HAVE AN INTERACTIVE INPUT-OUTPUT
                PROGRAM TO SERVE AS A "SMART" INTERFACE WITH OTHER MORE POWERFUL VERSIONS, SUCH AS MS.CLEANER,
                PERMITTING CONVERSATIONAL-MODE COMPUTER GRAPHICS. APPROACH: THE AQUATIC ECOSYSTEM MODEL CLEANER IS
                THE FOUNDATION UPON WHICH THIS MODEL WILL BE BASED. THE PRINCIPAL THRUST OF THIS PROJECT WILL BE TO
                RETAIN THE REALISM AND GENERALITY OF THE MODEL, WHILE AT THE SAME TIME SIMPLIFYING THE STRUCTURE
                AND PROGRAMMING FOR IMPLEMENTATION ON A MINICOMPUTER. SENSITIVITY ANALYSIS OF CLEANER WILL BE USED
                TO IDENTIFY THOSE ASPECTS OF THE MODEL THAT ARE INSENSITIVE IN A PARTICULAR AQUATIC ENVIRONMENT.
                CLEANER WILL BE PROGRAMMED FOR A MINICOMPUTER, GIVING SPECIAL ATTENTION TO NUMERICAL ACCURACY AND
                EXECUTION TIME. ENVIRONMENT-SPECIFIC VERSIONS WILL BE DEVELOPED FOR SEVERAL DISTINCT TYPES OF LAKES
                AND RESERVOIRS. A LIMITED NUMBER OF APPLICATION-SPECIFIC VERSIONS WILL DEMONSTRATE THE UTILITY OF
                THE MODEL. A USER'S MANUAL AND VIDEO TAPE PRESENTATION EXPLAINING THE USE OF THE MODEL WILL BE
                PROVIDED.
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*PROJECT: 006366-ANIMAL HEALTH EFFECT STUDIES OF INHALED PARTICULATES

                  TASK =HC03 -925500 **EPA=R806327      ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/78 - 10/81 :   FY80
 EPA  OFFICER.:    GRAHAM J.              EPA/HERL - RTP
 INVESTIGATOR.:    EHRLICH                UNKNOWN                           629-2531
 MILESTONES...: 06/79 -COMPLETE INTER. STUDY OF NH42SO4
                02/80 -COMPLETE ACUTE STUDY OF NH4HSO4 & NH4NO3
                05/80 -COMPLETE INTER. STUDY OF NH4HSO4 & NH4NO3
 PROGRAM ID...: (PE-C03 )            HEALTH EFFECTS/ NON-CRIT POLL -AIR
 MANDATE......: 10-02     CLEAN AIR ACT
 ORDIS CODES..: RECN-006366          SSIE-HZ 809295        EPA -R806327         ORD -RH10830-1080
                PE  -C03             LABT-OHR
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  10-24-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC                              PREVIOUS- 06-28-80
 ABSTRACT.....:  TO PROVIDE AN IMPROVED DATA BASE FOR THE HEALTH EFFECTS OF PARTICULATES - MICE WILL BE EXPOSED TO
                 SELECTED COMBINATIONS OF GASES (O3, NO2, OR SO2) AND PARTICLES #NH4!2SO4/NH4HSO4/NH4HNO3. EXPOSURES
                 WILL BE ACUTE/INTERMITTENT/CHRONIC AND WILL INCLUDE DOSE/RESPONSE RELATIONSHIPS FOR EFFECTS ON HOST
                 DEFENSE MECHANIAMS AGAINST INTERMITTENT EXPOSURES TO 1 MG/M3 AMMONIUM BISULFATE WERE COMPLETED.
                 HOWEVER FURTHER CHEMICAL ANALYSIS SHOWED THAT IT WAS CONVERTED BY NH3 IN THE CHAMBER TO (NH4)2SO4.
                 MICE WERE EXPOSED 3 HR/ DAY, 5 DAYS/WEEK FOR 1, 2 OR 4 WEEKS. PARTICLE SIZE ANALYSIS INDICATED THE
                 MMAD OF THE AEROSOL WAS APPROX. 0.33U WITH S G APPROX. 1.7. PARAMETERS EVALUATED INCLUDED
                 RESISTANCE TO RESPIRATORY INFECTION WITH STREPTOCOCCUS PYOGENES, PULMONARY BACTERICIDAL ACTIVITY,
                 PULMONARY FREE CELL NUMBER, TYPE, AND CONTENT, STRUCTURE AND FUNCTION EPITHELIUM, AND SCANNING
                 ELECTRON MICROSCOPIC EXAMINATION OF THE RESPIRATORY TRACT. MORTALITY RATES & MEAN SURVIVAL TIMES OF
                 MICE EXPOSED TO THE POLLUTANT DID NOT DIFFER FROM FILTERED-AIR EXPOSED CONTROLS IN ANY OF THE
                 EXPOSURE REGIMENS. TOTAL PULMONARY FREE CELL NUMBERS WERE UNCHANGED IN BOTH SEXES FOLLOWING 5 OR 20
                 EXPOSURES. CELLULAR ATP LEVELS WERE SIGNIFICANTLY INCREASED ONLY IN MALE MICE AFTER 5 EXPOSURES,
                 AND UNCHANGED IN BOTH SEXES FOLLOWING 20 EXPOSURES. SIGNIFICANT INCREASES IN TOTAL FREE CELL NUMBER
                 AND SIGNIFICANTLY DECREASED CELLULAR ATP CONTENT WERE FOUND IN BOTH MALE AND FEMALE EXPOSED MICE
                 RELATIVE TO CONTROLS AFTER 10 EXPOSURES. BACTERICIDAL ACTIVITY IN THE LUNGS OF FEMALE MICE WAS
                 SIGNIFICANTLY DEPRESSED ONLY AFTER 10 EXPOSURES. NO CHANGES IN BACTERICIDAL ACTIVITY WERE OBSERVED
                 IN MALE MICE.
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*PROJECT: 004738-BACTERIAL SURVIVAL IN POTABLE WATER WITH LOW TURBIDITY

                   TASK =CC61 -S2T035 **EPA=R806329-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/78 - 12/80 :   FY80
  EPA  OFFICER.: RH TAYLOR                 EPA/MERL - CINC                     FTS 8-684-7232
  INVESTIGATOR.: RM CIULLO                 NASSON COLLEGE                      DEPT OF BIOL
                 ME FERRAN                 NASSON COLLEGE                      DEPT OF BIOL
  MILESTONES...: 09/79 -CONTINUATION FUNDED
                 12/80 -FINAL REPORT
  PROGRAM ID...: (PE-C61 )           DRINK WATER TREATMENT & GROUND WATER PROT
  CURR. RESULTS: SIX WEEKS OF MONITORING DATA.
  ORDIS CODES..: RECN-004738         SSIE-GMA  5991 1      EPA -R806329-01       ORD -RC10830-1080
                 PE  -C61            LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  01-01-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THIS PROJECT WILL EXAMINE DIFFERENT TYPES AND LEVELS OF TURBIDITY THAT COULD PROVIDE
                  PROTECTION FOR BACTERIAL SURVIVAL DURING DISINFECTION. HOW DO TURBIDITY LEVELS AFFECT THE
                  DISINFECTION OF POTABLE WATER? THE NATURE AND EFFECTS OF BOTH ORGANIC AND INORGANIC TURBIDITIES
                  WILL BE DETERMINED. APPROACH: WEEKLY MONITORING OF THE NORTH BERWICK WATER CO. TREATMENT FACILITY
                  AND DISTRIBUTION SYSTEM WILL INCLUDE STANDARD PLATE COUNT, COLIFORMS, PH, TURBIDITY, CHLORINE, TOC,
                  AND COLOR. LAB SCALE TESTING OF TURBIDITY AFFECTS ON VARIOUS DISINFECTANTS AND DOSAGES WILL BE
                  PERFORMED.

*PROJECT: 000517-CO-FIRING OF RDF - DROSS WITH COAL IN A STOKER BOILER

                   TASK =B624B-000844 **EPA=R806338     ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/78 - 09/80 :   FY79
  EPA  OFFICER.: RA OLEXSEY                EPA/IERL - CINC                     FTS 8-684-4363
  INVESTIGATOR.: FR REHM                   MILWAUKEE CO ENV SERV DIV           MILWAUKEE                 WI 53233
                 R  HECKLINGER             MILWAUKEE CO ENV SERV DIV           MILWAUKEE                 WI 53233
                 CR VELZY                  MILWAUKEE CO ENV SERV DIV           MILWAUKEE                 WI 53233
  MILESTONES...: 08/79 -FINAL REPORT RECEIVED
  PROGRAM ID...: (PE-624 )           CONSERVATION & UTIL. TECHNOLOGY ASSESSMENT- ENERGY
  MANDATE......: 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                 20-14     DAA FOR SOLID WASTE
  ORDIS CODES..: RECN-000517         SSIE-GMA  5219 1      EPA -R806338          ORD -R810830-5079
                 PE  -624            LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 10-01-77    UPDATED-  07-01-79
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THIS RESEARCH AND DEVELOPMENT PROJECT IS TO DETERMINE THE SUITABILITY OF A TRAVELING
                  GRATE STOKER FURNACE FOR COMBUSTION OF COAL AND DROSS FROM A RESOURCE RECOVERY PLANT. IN THE
                  PROJECT, THE DROSS MATERIAL WILL BE FIRED WITH COAL AND THE EMISSIONS FROM THE COMBUSTION PROCESS
                  CHARACTERIZED. APPROACH: THE 900 ACRE MILWAUKEE COUNTY INSTITUTIONS COMPLEX INCLUDES A POWER PLANT
                  TO PRODUCE HEATING STEAM AND ELECTRICITY. STEAM IS GENERATED IN THREE TRAVELING-GRATE,
                  SPREADER-STOKER FIRED BOILERS. ONE SPREADER-STOKER WILL BE FITTED WITH A FUEL FIRING SYSTEM SO THAT
                  DROSS CAN BE SPREAD OVER A BURNING COAL BED. THE PROGRAM WOULD MONITOR AND EVALUATE THE PROBLEMS
                  ASSOCIATED WITH THE FEED SYSTEM.
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*PROJECT: 005512-DETERMINATION OF THE EXCHANGE PROCESSES BETWEEN FORESTS & THE ATMOSPHERE
                 WITH EMPHASIS ON MICROSCALE PRESSURE FLUCTUATION MEASUREMEN
                  TASK =GC05 -000264 **EPA=R806393     ** (GRANT)
                  STARTING/ COMPLETION DATE : 10/78 - 11/81 :   FY80
 EPA  OFFICER.: J  SHREFFLER               EPA/ESRL - RTP
 INVESTIGATOR.: KR KNOERR                  DUKE UNIV                        FTS 8-629-4524
 MILESTONES...: 10/78 -PROJECT INITIATION                                   DEPT. OF BOTANY
                09/79 -PROGRESS REPORT
                11/80 -PROGRESS REPORT
                11/81 -FINAL REPORT ON MEASUREMENT AND STATISTICAL ANALYSIS OF PRESSURE, VELOCITY
 PROGRAM ID...: (PE-C05 )           TRANS. AND FATE - AIR
 FINAL OUTPUT.: FINAL REPORT ON MEASUREMENT AND STATISTICAL ANALYSIS
                OF PRESSURE, VELOCITY, AND TEMPERATURE FLUCTUATIONS
                IN AND ABOVE A NATURAL PINE CANOPY.
 MANDATE......: 10-02     CLEAN AIR ACT
 CURR. RESULTS: PRELIMINARY MEASUREMENTS OF MICROSCALE PRESSURE
                FLUCTUATIONS AT SURFACT CARRIED OUT ON 3 DIFFERENT
                DAYS WITH RELATIVELY SIMILAR METEOROLOGICAL CONDITIONS.
                MEASURED RANGE OF PRESSURE FLUCTUATIONS WITHIN RANGE
                EXPECTED.  MAJOR ACQUISITION CAN BE STARTED DURING
                CURRENT GROWING SEASON.
 ORDIS CODES..: RECN-005512
                                   SSIE-GMA  5173 2      EPA -R806393         ORD -RG10830-1080
                LABN-G603A-AB-040  PE  -C05              LABT-EPE
 PROJ STATUS..: ACTIVE -MULTIVEAR  INFO-UPDATED
                CATEGORY-RESEARCH  ACCESS-PUBLIC         ENTERED - 06-28-80   UPDATED-  06-28-80
 ABSTRACT.....: OBJECTIVE: TO IMPROVE OUR UNDERSTANDING OF THE TURBULENT TRANSFER PROCESSES BETWEEN A FOREST CANOPY
                AND THE FREE ATMOSPHERIC SURFACE LAYER. PARTICULAR EMPHASIS IS TO BE PLACED ON MEASUREMENTS OF
                PRESSURE FLUCTUATIONS WITHIN AND ABOVE THE CANOPY AND INTERPRETATION OF THEIR ROLE IN THE OVERALL
                EXCHANGE PROCESS. APPROACH: THE PRINCIPAL FOCUS WILL BE ON MEASURING PRESSURE AND WIND SPEED
                FLUCTUATIONS IN A PINE TREE FOREST CANOPY. MAGNITUDES OF PRESSURE FLUCTUATIONS AND ASSOCIATED SHEAR
                STRESS WILL BE COMPARED TO LABORATORY DATA. INFORMATION WILL BE SOUGHT ON THE COUPLING BETWEEN THE
                ATMOSPHERIC SURFACE LAYER AND THE CANOPY FLOW. ATTEMPTS WILL BE MADE TO DERIVE PRESSURE VELOCITY
                CORRELATIONS WHICH ARE COMPONENTS OF THE EQUATIONS GOVERNING VERTICAL EXCHANGES IN AND ABOVE THE
                FOREST CANOPY.
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*PROJECT: 004801-ORIGINS AND BEHAVIOR OF POLLUTION AEROSOLS

                   TASK =GC20 -000588 **EPA=R806404-02  ** (GRANT)
                   STARTING/ COMPLETION DATE : 01/79 - 01/82 :   FY80
  EPA  OFFICER.: HM BARNES                EPA/ESRL - RTP                  FTS 8-629-2184
  INVESTIGATOR.: SK FRIEDLANDER           UNIV OF CALIFORNIA              DEPT. OF CHEMICAL NUCLEAR
  MILESTONES...: 01/80 -BEGIN SECOND YEAR GRANT ACTIVITY
                 01/81 -ANNUAL REPORT
                 04/81 -REPORT ON AEROSOL FORMATION FOR ORGANICS AND NITRATES
                 01/82 -ORD FINAL REPORT
  PROGRAM ID...: (PE-C20 )           * NO TEXT FOUND **
  MANDATE......: 10-02     CLEAN AIR ACT
                 20-23     DAA FOR AIR QUALITY PLANNING AND STANDARDS
                 20-20     AA FOR AIR AND WASTE MANAGEMENT
  CURR. RESULTS: LAB EQUIPMENT ASSEMBLED AND STUDIES BEGUN MAY 79.
  ORDIS CODES..: RECN-004801           SSIE-GMA  5817 1     EPA -R806404-02      ORD -RG10830-1080
                 LABN-G603A-AC-048     RCOM-A40             PE  -C20             LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED         ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC                             PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: TO INVESTIGATE THE FORMATION OF NITRATE AND ORGANIC COMPOUND CONTAINING AEROSOLS IN AN
                   EXPERIMENTAL LABORATORY SITUATION; TO TEST THE AEROSOL THEORY DEVELOPED BY THE PRINCIPAL
                   INVESTIGATOR FOR THE NITRATE AND ORGANIC AEROSOLS. APPROACH: BALLOON REACTOR STUDIES WILL BE
                   CARRIED OUT FOR NITRATES AND ORGANICS. ATMOSPHERIC AIR WILL BE SPIKED WITH PPM LEVELS OF NOX,
                   PROPYLENE AND AMMONIA. SIZE DISTRIBUTION OF AEROSOLS FORMED AND THE NITRATE AEROSOL FORMATION RATE
                   DETERMINED.

*PROJECT: 006673-STRESS-ETHYLENE PRODUCTION AS A MEASURE OF AIR POLLUTANT PHYTOTOXICITY

                   TASK =MC2G -000003 **EPA=R806412     ** (GRANT)
                   STARTING/ COMPLETION DATE : 01/79 - 01/81 :   FY80
  EPA  OFFICER.: DT TINGEY                EPA/ERL - CORVALLIS             FTS 8-420-4621
  INVESTIGATOR.: LE CRAKER                UNIV OF MASSACHUSETTS           DEPT OF FOOD & AGRIC ENG
  PROGRAM ID...: (PE-C2G )          FUEL PROCESSING, PREP AND ADV COMBUSTION - ENERGY
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-006673           SSIE-GMA  6788 1      EPA -R806412         ORD -RM10830-1080
                 PE  -C2G              LABT-EPE
  PROJ STATUS..: PROJECT-ACTIVE        INFO-ORIGINAL         ENTERED - 10-24-80   UPDATED-  10-24-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP STRESS-INDUCED ETHYLENE PRODUCTION AS A RAPID, ACCURATE TEST OF PHYTOTOXICITY
                   FOR GASEOUS AIR POLLUTANTS. THE RESEARCH WILL BE DIVIDED INTO TWO PHASES. THE FIRST WILL INVOLVE
                   THE DEVELOPMENT OF A RAPID QUANTITATIVE TEST FOR PHOTOTOXICITY USING STRESS ETHYLENE PRODUCTION
                   FROM PLANTS GROWN ON ARTIFICIAL MEDIA IN TEST TUBES. THE SECOND PHASE WILL RELATE POLLUTION-INDUCED
                   INJURY TO STRESS ETHYLENE PRODUCTION BY THE PLANTS. THE DATA FROM THIS PROJECT WILL BE USED TO
                   MODIFY THE PRESENT STRESS ETHYLENE TEST IN THE CURRENT IERL LEVEL I BIOASSAY MANUAL.
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*PROJECT: 005178-STUDY OF THE WATER DISTRIBUTION SYSTEM AS A POTENTIAL SOURCE OF
                 MUTAGENS/CARCINOGENS IN DRINKING WATERS
                   TASK =OC60 -4B003E **EPA=R806413-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 02/79 - 11/81 :   FY80
  EPA  OFFICER.: FC KOPFLER                EPA/HERL - CINC                     513-684-7451
  INVESTIGATOR.: J  SAXENA                 SYRACUSE RESEARCH CORP              SYRACUSE                  NY 13201
                 DK BASU                   SYRACUSE RESEARCH CORP              SYRACUSE                  NY 13201
                 DJ SCHWARTZ               SYRACUSE RESEARCH CORP              SYRACUSE                  NY 13201
  MILESTONES...: 01/80 -COMPLETE ANALYSIS OF 9 WATER SUPPLIES
                 02/81 -THE OCCURRENCE AND ORIGIN OF PAH AND MUTAGENIC ACTIVITY IN DRINKING WATERS
                 11/81 -COMPLETE ANALYSIS OF 18 WATER SUPPLIES
  PROGRAM ID...: (PE-C60 )            HEALTH EFFECTS  - DRINKING WATER
  FINAL OUTPUT.: OCCURENCE AND ORIGIN OF PAH AND MUTAGENIC
                 ACTIVITY IN DRINKING WATERS.
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  CURR. RESULTS: ANALYSIS OF 9 WATER SUPPLIES COMPLETED.  NO
                 SIGNIFICANT CONCENTRATION OF POLYNUCLEAR
                 AROMATIC HYDROCARBONS WERE FOUND.
  ORDIS CODES..: RECN-005178          SSIE-GMA  6180 1      EPA -R806413-01       ORD -RD10830-1080
                 LABN-D8238-0108      PE  -C60              LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE PROPOSED STUDY IS CONCERNED WITH ASSESSING THE MUTAGENIC/CARCINOGENIC POTENTIAL OF
                  DRINKING WATER REACHING THE PUBLIC, AND WITH EVALUATING THE ROLE OF THE DISTRIBUTION PROCESS IN
                  CONTRIBUTING THESE SUBSTANCES. THE SAMPLING LOCATIONS SELECTED FOR THIS STUDY REPRESENT THE LARGEST
                  WATER SUPPLIES WITHIN THE 18 SELECTED COUNTIES IN THE U.S. THE AREAS THESE SUPPLIES SERVE REPRESENT
                  BOTH HIGH AND LOW CANCER INCIDENCE AREAS. APPROACH: THE OVERALL MUTAGENIC/CARCINOGENIC ACTIVITY
                  SHALL BE DETERMINED UTILIZING BIOASSAY SYSTEMS, E.G., AMES SALMONELLA ASSAY. THE ANALYSIS SHALL BE
                  PERFORMED ON RAW WATER, ON FINISHED WATER AT THE TREATMENT PLANT, AND ON SAMPLES COLLECTED FROM
                  VARIOUS POINTS IN THE DISTRIBUTION SYSTEM REPRESENTING EXPOSURE TO DIFFERENT TYPES OF DISTRIBUTION
                  PIPES AND DIFFERENT LENGTHS OF PIPES. THE ASSAY SHALL BE PERFORMED ON THE WATERS AND ON THE ORGANIC
                  FRACTION RECOVERED FROM WATER USING POLYURETHANE FOAM COLUMNS. IN VIEW OF THE POTENTIAL OF
                  DISTRIBUTION PIPES FOR ADDITION OF POLYNUCLEAR AROMATIC HYDROCARBONS, THE PRESENCE OF THESE
                  CHEMICALS IN VARIOUS WATERS SHALL ALSO BE EXAMINED. ANALYSIS OF 9 WATER SUPPLIES COMPLETED ON
                  SCHEDULE. NO SIGNIFICANT CONCENTRATIONS OF POLYNUCLEAR AROMATIC HYDROCARBONS WERE FOUND.
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*PROJECT: 005133-DISEASE TRANSMISSION ASSOCIATED WITH LAND APPLICATION OF WASTEWATER

               TASK =DC27 -1A0002 **EPA=R806416-01  ** (GRANT)
               STARTING/ COMPLETION DATE : 01/79 - 11/82 :   FY80
                                                                  FTS 8-684-7385
 EPA  OFFICER.: M  JAKUBOWSKI           EPA/HERL - CINC           ENVIRONMENTAL HEALTH LAB
 INVESTIGATOR.: HI SHUVAL               HEBREW UNIV OF JERUSALEM  ENVIRONMENTAL HEALTH LAB
                B  FATTAL               HEBREW UNIV OF JERUSALEM  ENVIRONMENTAL HEALTH LAB
                M  DAVIES               HEBREW UNIV OF JERUSALEM
 MILESTONES...: 05/80 -INITIATE DATA COLLECTION PHASE
                11/80 -ANNUAL REPORT
                05/81 -COMPLETE DATA COLLECTION PHASE
                11/81 -ANNUAL REPORT
                11/82 -ASSESSMENT OF HEALTH EFFECTS ASSOCIATED WITH SPRAY IRRIGATION OF WASTEWATER
 PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
 FINAL OUTPUT.: ASSESSMENT OF HEALTH EFFECTS ASSOCIATED WITH SPRAY
                IRRIGATION OF WASTEWATER
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                20-12     DAA FOR WATER PROGRAM OPERATIONS
 ORDIS CODES..: RECN-005133        SSIE-GMA  6248 1     EPA -R806416-01      ORD -RD10830-5080
                LABN-D607A-006A    PE  -C27             LABT-OHR
 PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED         ENTERED - 10-01-79   UPDATED-  06-28-80
                CATEGORY-RESEARCH  ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: 1) TO DETERMINE AND MEASURE IF THERE IS A DEGREE OF ADDED RISK OF COMMUNICABLE DISEASE
                 INCIDENCE ASSOCIATED WITH WASTEWATER LAND APPLICATION AND IRRIGATION IN AGRICULTURAL COMMUNITIES
                 (KIBBUTZIM). 2) TO DETERMINE THE RELATIONSHIP BETWEEN ROUTES OF TRANSMISSION AND DISEASE INCIDENCE
                 IN THE STUDY POPULATION. APPROACH: A PROSPECTIVE EPIDEMIOLOGICAL STUDY WILL BE CARRIED OUT IN 30
                 KIBBUTZIM IN ISRAEL WHICH PRACTICE WASTEWATER IRRIGATION AND IN CONTROL GROUPS NOT IRRIGATING WITH
                 WASTEWATER. HEALTH RECORDS OF THE VARIOUS POPULATION GROUPS WILL BE STUDIED AND EPIDEMIOLOGIC
                 FOLLOW-UPS OF HIGHLY SUSCEPTIBLE GROUPS WILL BE MADE (VISITING VOLUNTEERS, ETC). SEROLOGIC AND
                 OTHER LAB TESTS WILL BE USED TO COMPARE INFECTION RATES OF EXPOSED AND CONTROL GROUPS. AIR
                 MONITORING STUDIES FOR AEROSOLIZED BACTERIA AND VIRUSES WILL BE CARRIED OUT.
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*PROJECT: 004851-SYMPOSIUM AND MODELING OF POLLUTANT TRANSPORT IN RECEIVING WATERS

                TASK =KC28 -000413 **EPA=R806425     ** (GRANT)
                STARTING/ COMPLETION DATE : 10/78 - 08/81 :   FY80
 EPA  OFFICER.: TD BARNWELL               EPA/ERL - ATHENS                      FTS 8-250-3175
 INVESTIGATOR.: HB FISHER                 UNIV OF CALIFORNIA                    DEPT OF CHEM ENGIN
 MILESTONES...: 08/80 -HOLD SYMPOSIUM
                08/81 -PROCEEDINGS
 PROGRAM ID...: (PE-C28 )           TRANS. AND FATE  - WATER QUALITY
 MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
 CURR. RESULTS: SYMPOSIUM SPEAKERS SELECTED AND ANNOUNCEMENTS MAILED.
 ORDIS CODES..: RECN-004851         SSIE-GMA  5825 1       EPA -R806425         ORD -RK10830-1080
                LABN-K6D9A-413      PE  -C28               LABT-EPE
 PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED           ENTERED - UNKNOWN    UPDATED-  11-20-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC                               PREVIOUS- 06-28-80
 ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THE SYMPOSIUM IS TO REVIEW THE STATE-OF-THE-ART OF MATHEMATICAL AND
                 PHYSICAL MODELING OF POLLUTANT TRANSPORT IN RIVERS, LAKES, RESERVOIRS, ESTUARIES, AND NEAR-SHORE
                 COASTAL AREAS, AND THE RELATIONSHIP BETWEEN TRANSPORT AND BIOCHEMICAL MODELS. APPROACH: THE
                 SYMPOSIUM WILL BE UNDER THE DIRECTION OF AN INTERNATIONAL SCIENTIFIC COMMITTEE AND IS SPONSORED BY
                 THE COMMITTEE ON FUNDAMENTALS OF THE INTERNATIONAL ASSOCIATION FOR HYDRAULIC RESEARCH AND THE
                 COMMITTEE ON HYDROLOGIC TRANSPORT OF POLLUTANTS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS. THE
                 SCIENTIFIC COMMITTEE WILL SELECT 12 PAPERS TO BE PRESENTED OVER A PERIOD OF THREE DAYS, ALLOWING
                 ADEQUATE TIME FOR DETAILED DISCUSSION. THE PROCEEDINGS WILL BE PUBLISHED BY A COMMERCIAL PUBLISHING
                 HOUSE. THE PROCEEDINGS ARE EXPECTED TO CONSTITUTE A STATE-OF-THE-ART PRESENTATION OF MODELING OF
                 HYDROLOGIC SYSTEMS. SYMPOSIUM SPEAKERS HAVE BEEN SELECTED AND ANNOUNCEMENTS MAILED.

*PROJECT: 006720-RAPID ASSAYS OF PLANT RESPONSE TO HERBICIDE TREATMENT

                TASK =MC2G -000002 **EPA=R806435     ** (GRANT)
                STARTING/ COMPLETION DATE : 00/80 - 11/80 :   FY80
 EPA  OFFICER.: DT TINGEY                 EPA/ERL - CORVALLIS                   FTS 8-420-4621
 INVESTIGATOR.: L  RAPPAPORT              UNIV OF CALIFORNIA                    COOP EXTENSION SERVICE
 PROGRAM ID...: (PE-C2G )           FUEL PROCESSING, PREP AND ADV COMBUSTION - ENERGY
 MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
 ORDIS CODES..: RECN-006720         SSIE-GMA  6889         EPA -R806435         ORD -RM10830-1080
                PE  -C2G            LABT-EPE
 PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL          ENTERED - 10-24-80   UPDATED-  10-24-80
                CATEGORY-RESEARCH   ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: TO DEVELOP METHODS WHICH WILL RAPIDLY ASSAY THE EFFECTS OF TOXIC AGENTS ON PLANTS AND
                 PLANT SYSTEMS. THE APPROACH IS TO USE TISSUE AND CELL CULTURES IN COMPARISON WITH IMPACT PLANTS TO
                 ASSAY THE EFFECTS OF PHYTOTOXIC COMPOUNDS ON VARIOUS PLANT RESPONSES. THESE INCLUDE ETHYLENE
                 PRODUCTION, NITRITE ACCUMULATION, AND NO PRODUCTION. THE RESULTS OF THIS GRANT WILL BE USED TO
                 MODIFY AND MINIATURIZE THE STRESS ETHYLENE PROTOCOL IN THE CURRENT IERL LEVEL I BIOASSAY MANUAL.
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60.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE -

EPA R806430-02

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT A Combined Absorption, Fluorescence, Fluorescence-Excitation, and Coherent Anti-Stokes Raman Detection System for a Liquid Chromatographic Identification of Environmental Pollutants.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

L. A. Carreira	L. B. Rogers
Associate Professor	Graham Perdue Professor of Chemistry

Department of Chemistry

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of Chemistry
University of Georgia
Athens, Georgia 30602

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Experiments will be performed to examine the possibility of using coherent Raman gain to increase the sensitivity of CARS. In addition, a second CARS system will be assembled so that a computer-controlled system for obtaining UV-visible absorption spectra, fluorescence/excitation spectra, coherent anti-Stokes Raman spectra, and liquid chromatographic retention volumes can be applied to identifications of non-volatile compounds in water.

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*PROJECT: 006141-IMMUNOCHEMICAL ANALYSIS OF PESTICIDES AND SURFACTANTS

                TASK =H615 -944900 **EPA=R806447      ** (GRANT)
                STARTING/ COMPLETION DATE : 03/79 - 03/82 :   FY79
EPA  OFFICER.: RL BARON                EPA/HERL - RTP                  FTS 8-629-2655
INVESTIGATOR.:   UNKNOWN               UNIV OF CALIFORNIA              RIVERSIDE                CA 92502
MILESTONES...: 06/80 -DEVELOP RIA FOR TWO PESTICIDES
               06/81 -IMPROVE IMMUNOASSAY PROCEDURES
               00/00 -FINAL REPORT
PROGRAM ID...: (PE-615 )          HEALTH EFFECTS - PESTICIDES
MANDATE......: 20-34     DAA FOR PESTICIDE PROGRAMS
ORDIS CODES..: RECN-006141        SSIE-HZ 799449        EPA -R806447        ORD -RH10B30-2077
               LABN-H615 -944900  PE  -615              LABT-OHR
PROJ STATUS..: PROJECT-ACTIVE     INFO-ORIGINAL         ENTERED - 06-28-80  UPDATED-  06-28-80
               CATEGORY-RESEARCH  ACCESS-PUBLIC
ABSTRACT.....: TO UTILIZE IMMUNOCHEMICAL TECHNOLOGY TO DEVELOP ANALYTICAL CAPABILITIES FOR PESTICIDE RESIDUE AND
                EXPOSURE ANALYSES. TO UTILIZE RADIO/ FLUORESCENCE POLARIZATION AND OTHER TECHNIQUES FOR THE
                DETERMINATIIN OF PESTICIDES FOR WHICH ADEQUATE ANALYTICAL METHODOLOGY IS LIMITED HAPTENS HAVE BEEN
                SYNTHESIZED FOR THE GROWTH REGULATOR BAY SIR 8514. THIS COMPOUND IS QUITE SIMILAR IN STRUCTURE TO
                DIFLUBENZURON. TWO PROPARGYL DERIVATIVES OF BAY SIR 8514 AND DIFLUBENZURON HAVE BEEN PREPARED AND
                REDUCED WITH DEUTERIUM GAS. THE POSSIBILITY OF REDUCTION WITH TRITIUM GAS TO YIELD A VERY HIGH
                SPECIFIC ACTIVITY RADIOLIGAND ( 120 CI/MMOL) IS BEING EXPLORED SEVEN OF 8 RABBITS HAVE DEVELOPED
                LOW TITERS OF DIFLUBENZURON SPECIFIC ANTIBODIES WHEN MONITORED WITH A LOW SPECIFIC ACTIVITY (16
                MCI/MMOL) 14C RADIOLABEL. THE IMMUNOASSAY IS ONLY SENSITIVE TO THE HIGH NANOGRAM LEVEL. HIGHER
                ANTIBODY TITERS BY REPEATED INNOCULATIONS AND HIGHER SENSITIVITY BY US:NG THE ABOVE TRITIATED
                MATERIALS ARE BEING EXPLORED. INJECTIONS WITH THE 8514 ANTIGEN WILL SHORTLY BE INITIATED.
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*PROJECT: 006370-IMMUNOCHEMICAL ANALYSIS OF PESTICIDES AND SURFACTANTS

                  TASK -HC86 -944900 **EPA=R806447     ** (GRANT)
                  STARTING/ COMPLETION DATE : 03/79 - 03/82 :   FY80
   EPA  OFFICER.: RL BARON                  EPA/HERL - RTP                  FTS 8-629-2655
   INVESTIGATOR.:    HAMMOCK                UNIV OF CALIFORNIA              RIVERSIDE                CA 92502
   MILESTONES...: 06/80 -DEVELOP RIA FOR TWO PESTICIDES
                  06/81 -IMPROVE IMMUNOASSAY PROCEDURES
                  00/00 -FINAL REPORT
   PROGRAM ID...: (PE-C86 )             HEALTH EFFECTS - PESTICIDES
   MANDATE......: 10-06     FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT
   ORDIS CODES..: RECN-006370           SSIE-HZ 809449        EPA -R806447          ORD -RH10830-1080
                  PE  -C86              LABT-OHR
   PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  10-24-80
                  CATEGORY-RESEARCH     ACCESS-PUBLIC                               PREVIOUS- 06-28-80
   ABSTRACT.....: TO UTILIZE IMMUNOCHEMICAL TECHNOLOGY TO DEVELOP ANALYTICAL CAPABILITIES FOR PESTICIDE RESIDUE AND
                    EXPOSURE ANALYSES. TO UTILIZE RADIO/ FLUORESCENCE POLARIZATION AND OTHER TECHNIQUES FOR THE
                    DETERMINATIIN OF PESTICIDES FOR WHICH ADEQUATE ANALYTICAL METHODOLOGY IS LIMITED A SENSITIVE ENVYME
                    LINKED IMMUNOSORBENT ASSAY (ELISA) HAS BEEN DEVELOPED FOR DIFLUBENZURON WITH PRELIMINARY DATA
                    SHOWING SENSITIVITY AT THE NG LEVEL. A POTENTIAL HAPTEN FOR THE PYRETHROID FENVALERATE HAS BEEN
                    SYNTHESIZED IN A MANNER SIMILAR TO THAT EMPLOYED WITH DIFLUBENZURON. THE HAPTEN WA OPTICALLY PURE
                    IN THE ACID BUT RACEMIC IN THE ALCOHOL MOIETY. THESE DATA ARE SIMILAR TO CONDITIONS OBTAINED WITH
                    PYRETHROIDS USED DIRECTLY AN ARE TO BE FURTHER STUDIED WITH OTHERS OF THIS PESTICIDE CLASS. WITH
                    TRITON X100 AN OVALBUMIN DERIVATIVE IS BEING USED AS AN ANTIGEN FOR IMMUNIZATION OF RABBITS AND
                    MICE. FOR THE DETECTION OF ANTI-TRITON X ANTIBODIES, THE BASIC SINGLE RADIAL IMMUNODIFFUSION (SRI)
                    AND REVERSED SRI PROCEDURES WILL BE INVESTIGATED. WORK WITH TWO CARBAMATES, ALDICARB AND CARBOFURAN
                    ARE IN PROGRESS TO PROVIDE A HAPTEN FOR IMMUNOASSAY.
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*PROJECT: 005592-STANDARDIZED WATER UTILITY REPORTING SYSTEM

                   TASK =CC61 -S1T092 **EPA=R806448-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 12/78 - 09/80 :   FY80
 EPA  OFFICER.: RM CLARK                 EPA/MERL - CINC                FTS 8-684-7228
 INVESTIGATOR.: V  FENDOR                KENTON COUNTY WATER DIST 1     FORT MITCHELL          KE 41017
 MILESTONES...: 12/79 -INTERIM REPORT
                06/80 -PROJECT COMPLETED
                01/81 -FINAL REPORT PUBLISHED
 PROGRAM ID...: (PE-C61 )           DRINK WATER TREATMENT & GROUND WATER PROT
 MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
 CURR. RESULTS: A STANDARDIZED FINICIAL REPORTING SYSTEM HAS BEEN
                DEVELOPED AND IS OPERATING IN KENTON COUNTY. IN THE
                MOST RECENT MODIFICATION THE CONCEPT OF ASTAND ALONE
                COMPUTER SYSTEM WILL BE EXPLORED
 ORDIS CODES..: RECN-005592            SSIE-GMA  6584        EPA -R806448-01       ORD -RC10B30-1080
                PE  -C61               LABT-EET
 PROJ STATUS..: PROJECT-ACTIVE         INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                CATEGORY-RESEARCH      ACCESS-PUBLIC                               PREVIOUS- 06-28-80
 ABSTRACT.....: OBJECTIVE: TO DEVELOP A FINANCIAL REPORTING SYSTEM THAT HAS UNIVERSAL APPLICATION TO THE WATER
                 SUPPLY INDUSTRY, BUT THAT SPECIFICALLY IS APPLIED TO THE KENTON COUNTY, KENTUCKY, WATER DISTRICT
                 NO. 1 (DISTRICT). THIS SYSTEM MUST BE COMPATIBLE WITH THE NARUC ACCOUNT NUMBERING SYSTEM AND MUST
                 FUNCTION ON AN IBM 370 SERIES COMPUTER IN COBOL LANGUAGE. IT MUST ALSO BE COMPATIBLE WITH THE
                 STANDARDIZED COST ACCOUNTING SYSTEM DEVELOPED BY THE EPA, AND BE ADAPTABLE TO AN IBM SYSTEMS 34
                 COMPUTER. APPROACH: AN EVALUATION WILL BE CONDUCTED TO IDENTIFY THE SPECIFIC OUTPUTS REQUIRED BY
                 KENTON COUNTY AND COMPARE THESE OUTPUTS TO THE REQUIREMENTS OF TWO OTHER WATER UTILITIES WHICH ARE
                 SIGNIFICANTLY DIFFERENT THAN THE DISTRICT. FROM THE OUTPUTS, SPECIFIC INPUTS WILL BE IDENTIFIED AND
                 PROCEDURES WILL BE ESTABLISHED TO COLLECT THE SOURCE INFORMATION. COMPUTER PROGRAMS WILL THEN BE
                 DESIGNED WHICH WILL TAKE THE INPUT SOURCE DATA, PROCESS THE DATA, AND PRODUCE THE REQUIRED OUTPUTS.
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*PROJECT: 005128-PERFORMANCE CHARACTERISTICS OF PACKAGE WATER TREATMENT PLANTS

                   TASK =CC61 -S1T078 **EPA=R806449-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 04/79 - 06/81 :   FY80
  EPA  OFFICER.: TJ SORG                   EPA/MERL - CINC                      FTS 8-684-7228
  INVESTIGATOR.: JM MORAND                 UNIV OF CINCINNATI                   SCH OF ENG/ELEC ENG TECH
  MILESTONES...: 04/79 -COLLECT TREATMENT INFORMATION FROM EQ. MANUFACTURERS & STATE AGENCIES
                 04/79 -SELECT 4 STUDY SITES
                 06/79 -ESTABLISH DATA COLLECTION SYSTEM AT FOUR SITES
                 09/79 -ESTABLISH DATA COLLECTION SYSTEM AT FOUR ADDITIONAL SITES
                 03/81 -COMPLETE DATA COLLECTION
  PROGRAM ID...: (PE-C61 )           DRINK WATER TREATMENT & GROUND WATER PROT
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
  CURR. RESULTS: FOUR PACKAGE PLANT SYSTEMS SELECTED FOR INITIAL
                 START-UP PERIOD  PLANT DATA COLLECTED FROM EIGHT SYSTEM
                 FOR NINE MONTHS
  ORDIS CODES..: RECN-005128           SSIE-GMA  6237 1      EPA -R806449-01      ORD -RC10830-1080
                 PE  -C61              LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC                              PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THIS PROJECT WILL EVALUATE THE PERFORMANCE CHARACTERISTICS OF SEVERAL EXISTING PACKAGE
                  WATER TREATMENT PLANTS IN THE MID-WEST, TREATING VARIOUS TYPES OF SURFACE AND GROUND WATERS.
                  APPROACH: SIX TO TEN TREATMENT PLANTS WILL BE CONTACTED TO PARTICIPATE IN THE STUDY. OPERATIONAL
                  DATA WILL BE COLLECTED OVER A ONE YEAR PERIOD TO MONITOR THE PERFORMANCE OF THESE PLANTS TO TREAT
                  RAW WATER WITH CHANGING CHARACTERISTICS.
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*PROJECT: 004751-REOVIRUSES IN WATER POLLUTION TESTING

                 TASK =DC27 -1B0004 **EPA=R806527     ** (GRANT)
                 STARTING/ COMPLETION DATE : 04/79 - 03/81 :   FY80
  EPA  OFFICER.: EW AKIN                  EPA/HERL - CINC                FTS 8-684-7218
  INVESTIGATOR.: RA SPENDLOVE             UTAH HIGHER EDUCATION SYSTEM        SALT LAKE CITY           UT 84112
                 B  BARNETT               UTAH HIGHER EDUCATION SYSTEM        SALT LAKE CITY           UT 84112
  MILESTONES...: 04/80 -PROCED. FOR RECOVERY OF REOVIRUS BOVINE ROTAVIRUS
                 03/81 -DATA ON THE SUITABILITY OF REOVIRUS IN ENVIRONMENTAL SAMPLES
  PROGRAM ID...: (PE-C27 )          HEALTH EFFECTS - WATER QUALITY
  FINAL OUTPUT.: DATA ON SUITABILITY OF REOVIRUS AS INDICATOR OF
                 ENTERIC VIRUS PRESENCE IN ENVIRONMENTAL SAMPLES.
  MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
                 10-15      SAFE DRINKING WATER ACT
                 20-12      DAA FOR WATER PROGRAM OPERATIONS
                 20-13      DAA FOR DRINKING WATER
  CURR. RESULTS: REOVIRUS FOUND TO BE PRESENT IN HIGH NUMBERS IN RAW
                 SEWAGE.  BOVINE CELLS DETERMINED TO BE BEST OF 12
                 CANDIDATE CELL LINES FOR ISOLATING REOVIRUS FROM
                 SAMPLES.  PROTAMINE SULFATE METHODS SUCCESSFULLY
                 MODIFIED TO ALLOW LARGE VOLUME SAMPLING OF WATER FOR
                 REOVIRUS PROTAVIRUS RECOVERY.
  ORDIS CODES..: RECN-004751          SSIE-GMA  5773 1      EPA -R806527          ORD -RD10B30-5080
                 LABN-D607A-015A      PE  -C27              LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: 1. THE DEVELOPMENT OF A SENSITIVE PROCEDURE FOR CONCENTRATING, ISOLATING AND ASSAYING
                  INFECTIOUS AND POTENTIALLY INFECTIOUS (ENZYME ENHANCEABLE) REOVIRUSES AND ROTAVIRUSES FROM RAW
                  SEWAGE, TREATED SEWAGE (EFFLUENTS) AND RAW SLUDGE. 2. DETERMINATION OF THE OCCURRENCE (BY USING THE
                  ABOVE PROCEDURE) OF REOVIRUSES/ROTAVIRUSES IN RAW SEWAGE, SEWAGE EFFLUENTS, SLUDGE AND FEEDLOT RUN
                  OFF. 3. COMPARISON FOR THE OCCURRENCE (CONCENTRATION AND FREQUENCY) OF REOVIRUSES/ROTAVIRUSES WITH
                  THE OCCURRENCE OF HUMAN ENTEROVIRUSES IN SEWAGE AND SLUDGE. APPROACH: THE PROTAMINE SULFATE
                  PRECIPITATION METHOD WILL BE USED (AND MODIFIED) TO CONCENTRATE THE VIRUSES. THE FLUORESCENT
                  ANTIBODY PROCEDURE AND THE PLAQUE ASSAY PROCEDURE WILL BE USED TO COMPARE VARIOUS CELL LINES FOR
                  REOVIRUS AND ROTAVIRUS RECOVERY SENSITIVITY. ENZYME ACTIVATION TECHNIQUES WILL BE USED TO RECOVER
                  POTENTIALLY INFECTIOUS VIRUSES. THE DEVELOPED PROCEDURES WILL THEN BE USED TO EVALUATE THE
                  OCCURRENCE OF THESE VIRUSES IN ENVIRONMENTAL SAMPLES.
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*PROJECT: 004753-STUDIES OF WATERBORNE AGENTS OF VIRAL GASTROENTERITIS

                    TASK =OC27 -180005 **EPA=R806546     ** (GRANT)
                    STARTING/ COMPLETION DATE : 02/79 - 02/81 :   FY80
   EPA  OFFICER.: EM AKIN                   EPA/MERL - CINC                   FTS 8-684-7218
   INVESTIGATOR.: R  DOLIN                  UNIV OF VERMONT                   SCHOOL OF MEDICINE
                  RC REICHMAN               UNIV OF VERMONT                   SCHOOL OF MEDICINE
   MILESTONES...: 02/80 -RIA CHARACTERIZATION OF SNOW MT. AGENT OF GASTROENTERITIS
                  02/81 -CHARACT. OF SNOW MT. AGENT OF WATERBORNE GASTROENTERITIS
   PROGRAM ID...: (PE-C27 )           HEALTH EFFECTS - WATER QUALITY
   FINAL OUTPUT.: CHARACTERIZTION OF NEWLY IDENTIFIED SNOW MT.
                  AGENT OF WATERBORNE GASTROENTERITIS.
   MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                  10-15     SAFE DRINKING WATER ACT
                  20-12     DAA FOR WATER PROGRAM OPERATIONS
   CURR. RESULTS: VIRAL PARTICLES HAVE BEEN OBSERVED BY IEM IN 6 OF 15
                  INDIVIDUALS EXPERIENCING GASTROENTERITIS ASSOCIATED
                  WITH WATERBORNE OUTBREAK.  TWO DISTINCT PARTICLE
                  TYPES IDENTIFIED, NEITHER OF WHICH HAVE BEEN
                  CULTIVATED IN VITRO/.
   ORDIS CODES..: RECN-004753         SSIE-GMA  5780 1      EPA -R806546        ORD -RD10830-5080
                  LABN-0607A-018A     PE  -C27              LABT-OHR
   PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  06-28-80
                  CATEGORY-RESEARCH   ACCESS-PUBLIC
   ABSTRACT.....: OBJECTIVE: THESE INVESTIGATIONS ARE DESIGNED TO DEVELOP TECHNIQUES FOR THE GROWTH AND DETECTION OF
                   WATERBORNE VIRAL AGENTS OF GASTROENTERITIS. THE EVENTUAL GOAL OF THESE INVESTIGATIONS IS TO
                   EVALUATE, AND IF NECESSARY, DEVISE POTENTIAL METHODS OF CONTROL, SUCH AS DECONTAMINATION OF WATER
                   SUPPLIES. APPROACH: KNOWN INFECTIOUS (VIRUS-CONTAINING) STOOL SPECIMENS, ALONG WITH ACUTE AND
                   CONVALESCENT SERA FROM NATURALLY OCCURRING AND EXPERIMENTALLY INDUCED ILLNESS ARE AVAILABLE FOR
                   STUDY. THESE MATERIALS ARE EXAMINED BY IMMUNE ELECTRON MICROSCOPY. IN VITRO ASSAYS SUCH AS IMMUNE
                   ADHERENCE HEMAGLUTINATION AND RADIOIMMUNOASSAY ARE ALSO BEING DEVELOPED. INTENSIVE EFFORTS TO GROW
                   THESE PREVIOUSLY UNCULTIVATED AGENTS IN VITRO ARE ALSO BEING CARRIED OUT, IN A VARIETY OF HUMAN AND
                   PRIMATE TISSUE AND ORGAN CULTURES.
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*PROJECT: 004890-ICHTHYOPLANKTON LOSSES IN WESTERN LAKE ERIE IN 1975-1977

                   TASK =H769 -000051 **EPA=R806565-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 11/79 - 02/80 :   FY79
  EPA  OFFICER.: NA THOMAS                   EPA/ERL - DULUTH                   FTS 8-226-7811
  INVESTIGATOR.: RL PATTERSON                UNIV OF MICHIGAN                   SCHOOL OF NAT. RES.
  MILESTONES...: 11/79 -INTERIM REPORT
                 02/80 -FINAL REPORT
  PROGRAM ID...: (PE-769 )           GREAT LAKES PROGRAM
  FINAL OUTPUT.: FINAL REPORT
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 20-12     DAA FOR WATER PROGRAM OPERATIONS
                 20-40     AA FOR ENFORCEMENT
                 20-R05    EPA REGION V
                 20-R02    EPA REGION II
                 30-99     FISHERIES MANAGERS, POWER REGULATION
  CURR. RESULTS: ANALYSIS FOR YELLOW PERCH HAS BEEN COMPLETED.
  ORDIS CODES..: RECN-004890          SSIE-GNA  5854        EPA -R806565-01       ORD -RN10830-5079
                 PE  -769             LABT-EPE
  PROJ STATUS..: PROJECT-COMPLETED    INFO-ORIGINAL         ENTERED - 07-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: IMPACTS OF FISH POPULATION IN WESTERN LAKE ERIE BY POWER PLANTS USING OPEN CYCLE COOLING
                  TECHNOLOGY IS INVESTIGATED. DATA TO BE USED IN THE STUDY WERE OBTAINED IN LARVAL FISH SURVEYS IN
                  1975, AND 1976, AND 1977 BY THE MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND THE OHIO CENTER FOR
                  LAKE ERIE AREA RESEARCH. ESTIMATES ARE OBTAINED FOR (A) TOTAL NUMBERS OF LARVAL FISHES ENTRAINED IN
                  1975-77, (B) NUMBER OF EQUIVALENT ADULTS LOST TO THE FISH POPULATIONS, AND (C) NUMBER OF EQUIVALENT
                  ADULTS LOST TO THE MORE IMPORTANT FISHERIES. APPROACH: NUMBER OF EQUIVALENT ADULTS LOST WILL BE
                  CALCULATED FROM THE LARVAL FISH DATA.
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*PROJECT: 004793-ANALYSIS OF THE RELATIONSHIPS BETWEEN HAZE, OZONE, SULFATE, AND
                 TRANSPORT
                   TASK =GC05 -000221 **EPA=R806593     ** (GRANT)
                   STARTING/ COMPLETION DATE : 05/79 - 08/80 :   FY80
  EPA  OFFICER.: WE WILSON                 EPA/ESRL - RTP                       FTS 8-629-5381
  INVESTIGATOR.: PJ LIOY                   NEW YORK UNIV                        INST OF ENV MED
  MILESTONES...: 12/78 -GRANT PACKAGE TO LSO
                 09/80 -REPORT ON THE INTERRELATIONSHIPS OF VISIBILITY
                 03/81 -FINAL REPORT
  PROGRAM ID...: (PE-C05 )           TRANS. AND FATE - AIR
  FINAL OUTPUT.: REPORT ON EFFECTS OF PRECURSOR EMISSIONS, AND
                 SUBSEQUENT TRANSPORT AND TRANSFORMATION ON
                 EPISODES IN NEW YORK AREA.
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: AN INTERIM INFORMAL REPORT WAS PREPARED SHOWING THE
                 ASSOCIATION BETWEEN SULFATE LEVELS AT DISCRETE
                 SAMPLING POINTS AND REGIONAL PATTERNS OF CONCURRENT
                 AND PRIOR ELEVATED ZONE VALUES.
  ORDIS CODES..: RECN-004793           SSIE-GMA  5813 1      EPA -R806593          ORD -RG10830-1080
                 LABN-G603A-AA-121     PE  -C05              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: ANALYZE EXISTING DATA BASE TO DETERMINE STATISTICAL AND THEORETICAL RELATIONSHIPS BETWEEN
                  SULFATE, O3, VISIBILITY, AND LONG-RANGE AIR PARCEL TRAJECTORIES. APPROACH: COLLECT DATA ON OZONE
                  AND SULFATE CONCENTRATIOS IN EASTERN U.S. USE VISIBILITY ISOPLETHS FROM TASK GC05-0201. DETERMINE
                  STATISTICAL CORRELATIONS. FOR SELECTED PERIODS OF HIGH POLLUTION, CALCULATE LONG-RANGE AIR PARCEL
                  TRAJECTORIES AND USE TO INTERPRET RELATIONSHIPS BETWEEN HIGH OZONE, HIGH SULFATE, AND LOW
                  VISIBILITY.
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*PROJECT: 005188-MODEL SELECTION AND VALIDATION

                 TASK =GC05 -000279 **EPA=R806593-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 09/79 - 09/81 :   FY80
 EPA  OFFICER.: LE NIEMEYER               EPA/ESRL - RTP                 FTS 8-629-4541
 INVESTIGATOR.: KC SPENGLER               AMERICAN METEOROLOGICAL SOC    BOSTON                       MA 02108
 MILESTONES...: 09/80 -PROJECT REPORT
                09/81 -FINAL REPORT
                09/81 -RECOMMENDATIONS FOR AIR QUALITY MODEL SELECTION AND VALIDATION CRITERIA
 PROGRAM ID...: (PE-C05 )           TRANS. AND FATE - AIR
 FINAL OUTPUT.: RECOMMENDATIONS FOR AIR QUALITY MODEL SELECTION
                AND VALIDATION CRITERIA.
 MANDATE......: 10-02     CLEAN AIR ACT
                20-23     DAA FOR AIR QUALITY PLANNING AND STANDARDS
 ORDIS CODES..: RECN-005188          SSIE-GMA  6121 1      EPA -R806593-01      ORD -RG10830-5080
                LABN-G603A-AB-057    PE  -C05              LABT-EPE
 PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79   UPDATED-  06-28-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THE PROJECT IS TO PROVIDE TECHNICAL ASSISTANCE IN SELECTING AND
                 VALIDATING AIR QUALITY MODELS FOR REGULATORY APPLICATIONS. APPROACH: THE EPA GUIDELINE ON AIR
                 QUALITY MODELS WILL BE REVIEWED AND CHANGES RECOMMENDED, AIR QUALITY MODELS SUGGESTED FOR USE BY
                 EPA WILL BE REVIEWED AND RECOMMENDATIONS MADE ON MINIMUM ACCEPTABLE CRITERIA FOR MODEL SELECTION
                 AND VALIDATION, AND THE DATA BASE REQUIREMENTS FOR MODEL USE WILL BE EVALUATED AND THE MINIMUM
                 REQUIREMENTS RECOMMENDED.
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*PROJECT: 004405-FULL-SCALE STUDY OF SEQUENCING BATCH REACTORS

                  TASK =CC35 -03TC13 **EPA=R806598-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 04/79 - 08/81 :   FY80
  EPA  OFFICER.: EF BARTH                  EPA/MERL - CINC            FTS 8-684-7641
  INVESTIGATOR.: RL IRVINE                 UNIV OF NOTRE DAME         DEPT OF CIVIL ENGIN
                 LH KETCHUM                UNIV OF NOTRE DAME         DEPT OF CIVIL ENGIN
  MILESTONES...: 06/80 -NSF USER COMMITTEE MEETING
                 06/80 -INITIAL MONITORING OF MODIFIED SYSTEM IN PROGRESS
                 08/80 -EVALUATION OF NITRIFICATION
                 02/81 -MICROPROCESSOR EVALUATED
                 04/81 -PROJECT COMPLETED
                 06/81 -DATA EVALUATION
                 09/81 -FINAL REPORT
                 01/82 -PUBL OF RESULTS IN ENVIR. PROTECTION SERIES AND J.W.P.C.F.
  PROGRAM ID...: (PE-C35 )          WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  FINAL OUTPUT.: PUBLICATION OF RESULTS IN ENV PROTECTION TECHNOLOGY
                 SERIES AND JWPCF.
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  CURR. RESULTS: PERSONNEL AND EQUIPMENT BEING ASSEMBLED.
                 MONITORING OF MODIFIED SYSTEM IN PROGRESS.
                 LAB Q.C. EVALUATED WITH PERFORMANCE SAMPLES.
  ORDIS CODES..: RECN-004405         SSIE-GMA  5633 1      EPA -R806598-01       ORD -RC10830-1080
                 PE  -C35            LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  01-01-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DETERMINE FEASIBILITY OF USING SEQUENCING BATCH REACTORS AS AN ALTERNATIVE TO
                  CONVENTIONAL CONTINUOUS-FLOW ACTIVATED SLUDGE FOR TREATMENT OF MUNICIPAL WASTEWATER. APPROACH: THE
                  CULVER CITY, INDIANA, TREATMENT PLANT WILL BE MODIFIED FROM CONTINUOUS FLOW TO BATCH TREATMENT. A
                  MICROPROCESSOR WILL BE USED TO CONTROL OPERATIONAL VARIABLES.
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*PROJECT: 004888-ECOLOGICAL STUDIES AND MATHEMATICAL MODELING FOR THE CONTROL OF
                 CLADOPHORA IN THE GREAT LAKES
                   TASK =NC30 -000049 **EPA=R806600      ** (GRANT)
                   STARTING/ COMPLETION DATE : 03/79 - 03/81 :   FY80
  EPA  OFFICER.: DM DOLAN                  EPA/ERL - DULUTH                FTS 8-226-7811
  INVESTIGATOR.: RP CANALE                 UNIV OF MICHIGAN                DEPT OF AEROSPACE ENG
  MILESTONES...: 05/79 -ESTABLISH FIELD STATION, INITIATE SAMPLING
                 09/80 -MODEL CALIBRATION REPORT
                 10/80 -COMPLETE FIELD WORK
  PROGRAM ID...: (PE-C30 )           GREAT LAKES PROGRAM
  MANDATE......: 30-99      AQUATIC BIOLOGY
  CURR. RESULTS: 1979 FIELD WORK COMPLETE. PHOSPHOROUS REMOVAL INSTALLED.
                 FIELD STATION ESTABLISHED AT HARBOR BEACH.  COORDINATION
                 ACHIEVED WITH NASA FOR OVERFLIGHTS
  ORDIS CODES..: RECN-004888          SSIE-GMA  5856 1      EPA -R806600          ORD -RN10830-3080
                 PE  -C30             LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 07-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: CONTROL THE CLADOPHORA PROBLEM IN LAKE HURON ALONG THE UNITED STATES SHORELINE. APPROACH:
                  DETERMINE EFFECTIVENESS OF ALTERNATE CONTROL STRATEGIES USING MATHEMATICAL MODELS. DEVELOP MODELS
                  USING FIELD AND LAB EXPERIMENTS. OBTAIN VERIFICATION DATA UNDER VARYING ENVIRONMENTAL CONDITIONS.


*PROJECT: 005183-REGIONAL SCALE HAZINESS - ORIGIN, SPATIAL-TEMPORAL DISTRIBUTIONS,
                 PROPERTIES AND EFFECTS ON ATMOSPHERIC RADIATION
                   TASK =GC05 -000218 **EPA=R806606-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 05/79 - 09/82 :   FY80
  EPA  OFFICER.: WE WILSON                 EPA/ESRL - RTP                  FTS 8-629-5381
  INVESTIGATOR.: RB HUSAR                  WASHINGTON UNIV                 ST LOUIS                    MO 63130
  MILESTONES...: 06/79 -SITES BECOME OPERATIVE
                 09/79 -REPORT ON DATA BASE WITH 10 YEARS OF ISOPLETHS
                 05/80 -PROGRESS REPORT ON SULFATES
                 09/80 -PROGRESS REPORT ON VISIBILITY TRENDS
                 09/82 -REPORT ON VISIBILITY TRENDS AND SULFURIC ACID MEASUREMENTS
  PROGRAM ID...: (PE-C05 )            TRANS. AND FATE - AIR
  FINAL OUTPUT.: REPORT ON VISIBILITY TRENDS AND SULFURIC ACID
                 MEASUREMENTS.
  MANDATE......: 10-02      CLEAN AIR ACT
  ORDIS CODES..: RECN-005183          SSIE-GMA  6117 1      EPA -R806606-01       ORD -RG10830-1080
                 PE  -C05             LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVES: 1) TO EXAMINE THE RELATIONSHIP BETWEEN PARTICULATE SULFUR CONCENTRATIONS, ACIDITY, FINE
                  PARTICULATE MASS CONCENTRATION, LIGHT SCATTERING, AIR MASS HISTORY, TIME OF DAY AND SEASON. 2) TO
                  STUDY THE ORIGIN, SPATIAL AND TEMPORAL TRENDS OF REGIONAL SCALE HAZINESS. APPROACH: 1) ACIDITY OF
                  FINE PARTICLE SULFUR COMPOUNDS WILL BE MONITORED IN ST. LOUIS, MO. AND UNIVERSITY PARK, PA. USING A
                  FLAME PHOTOMETRIC PARTICULATE SULFUR MONITOR COMBINED WITH DIFFERENTIAL THERMAL ANALYSIS. 2)
                  METEOROLOGICAL DATA OF THE NATIONAL WEATHER SERVICE WILL BE USED TO STUDY REGIONAL HAZINESS.
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*PROJECT: 005383-REGIONAL SCALE HAZINESS - ORIGIN, SPATIAL-TEMPORAL DISTRIBUTIONS,
                 PROPERTIES AND EFFECTS ON ATMOSPHERIC RADIATION
                   TASK =GC05 -000201 **EPA=R806606-0151** (GRANT)
                   STARTING/ COMPLETION DATE : 05/79 - 09/82 :   FY80
  EPA  OFFICER.: WE WILSON              EPA/ESRL - RTP                    FTS 8-629-5381
  INVESTIGATOR.: RB HUSAR               WASHINGTON UNIV                   ST LOUIS                MO 63130
  MILESTONES...: 06/79 -SITES BECOME OPERATIVE
                 09/79 -REPORT ON DATA BASE WITH 10 YEARS OF ISOPLETHS
                 05/80 -PROGRESS REPORT ON SULFATES
                 09/80 -PROGRESS REPORT ON VISIBILITY TRENDS
                 09/82 -REPORT ON VISIBILITY TRENDS AND SULFURIC ACID MEASUREMENTS
  PROGRAM ID...: (PE-C05 )         TRANS. AND FATE - AIR
  FINAL OUTPUT.: REPORT ON VISIBILITY TRENDS AND SULFURIC ACID MEASUREMENTS
  MANDATE......: 10-02     CLEAN AIR ACT
  ORDIS CODES..: RECN-005383         SSIE-GMA  6333 1    EPA -R806606-0151    ORD -RG10830-1080
                 PE  -C05            LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED        ENTERED - 01-01-80   UPDATED-  04-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: 1) TO EXAMINE THE RELATIONSHIP BETWEEN PARTICULATE SULFUR CONCENTRATIONS, ACIDITY, FINE
                  PARTICULATE MASS CONCENTRATION, LIGHT SCATTERING, AIR MASS HISTORY, TIME OF DAY AND SEASON. 2) TO
                  STUDY THE ORIGIN, SPATIAL AND TEMPORAL TRENDS OF REGIONAL SCALE HAZINESS. APPROACH: 1) ACIDITY OF
                  FINE PARTICLE SULFUR COMPOUNDS WILL BE MONITORED IN ST. LOUIS, MO. AND UNIVERSITY PARK, PA. USING A
                  FLAME PHOTOMETRIC PARTICULATE SULFUR MONITOR COMBINED WITH DIFFERENTIAL THERMAL ANALYSIS. 2)
                  METEOROLOGICAL DATA OF THE NATIONAL WEATHER SERVICE WILL BE USED TO STUDY REGIONAL HAZINESS.


*PROJECT: 005112-REMOVAL OF ORGANIC PRIORITY POLLUTANTS BY VOLATILIZATION DURING
                 WASTEWATER TREATMENT
                   TASK =CC36 -55AE11 **EPA=R806631-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/79 - 05/81 :   FY80
  EPA  OFFICER.: P  WARNER              EPA/MERL - CINC                   FTS-8-684-7666
  INVESTIGATOR.: PV ROBERTS             STANFORD UNIV                     CIV ENG DEPT
  MILESTONES...: 05/81 -REPORT OF FINDINGS
  PROGRAM ID...: (PE-C36 )         URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005112         SSIE-GMA  6218 1    EPA -R806631-01      ORD -RC10830-1080
                 PE  -C36            LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED        ENTERED - UNKNOWN    UPDATED-  11-20-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC                            PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS PROJECT IS TO EVALUATE THE REMOVAL OF ORGANIC PRIORITY POLLUTANTS
                  FROM WASTEWATER BY THE MECHANISM OF STRIPPING DURING AERATION. APPROACH: THE AVAILABLE INFORMATION
                  WILL BE ASSEMBLED AND EVALUATED. VAPOR-LIQUID EQUILIBRIA WILL BE MEASURED AND RATES OF
                  VOLATILIZATION OF SELECTED PRIORITY POLLUTANTS WILL BE MEASURED RELATIVE TO DISSOLVED OXYGEN
                  DISSOLUTION AND EVOLUTION OF A RADIOACTIVE GAS TRACER. BUBBLE COLUMN EXPERIMENT AND LARGE-SCALE
                  AERATION TESTS WILL BE USED TO DEVELOP AND VERIFY A MODEL FOR THE REMOVAL OF VOLATILE PRIORITY
                  POLLUTANTS BY STRIPPING DURING AERATION.
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*PROJECT: 004808-REFINEMENT, VERFICATION, AND APPLICATION OF A LONG-RANGE TRANSPORT MODEL
                 OF SO2 AND SULFATE
                  TASK =GC1M -000337 **EPA=R806658-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 05/79 - 12/80 :   FY80
  EPA  OFFICER.: GC HOLZWORTH               EPA/ESRL - RTP                   FTS-8-629-4551
  INVESTIGATOR.: ER REITER                  COLORADO STATE UNIV              AGRIC ENG DEPT
                 T  HENMI                   COLORADO STATE UNIV              AGRIC ENG DEPT
  MILESTONES...: 12/80 -MODEL PROGRAM, VALIDATION, PROJECTED SCENARIOS
  PROGRAM ID...: (PE-C1M )          ANTICIPATORY  - INTERDISCIPLINARY
  FINAL OUTPUT.: INTERIM REPORT RECEIVED ON PROGRESS ON 12/79 REPORTS ON PRIOR
                 GRANTRS ARE LONG RANGE TRANSPORT AND TF NSPORMATION OF
                 SO2 AND SULFATE (EPA-600/4-79-068) AND RESIDENCE TIME OF
                 ATMOSPHERIC POLLUTANTS AND LONG RANFE TRANSPO
                 (EPA-600/4-78-003)
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: REPORT ON AEROSOL TRANSPORT OF SULFURIC ACID FROM ROAD
                 HAS BEEN PRINTED.
  ORDIS CODES..: RECN-004808           SSIE-GMA  5816 1      EPA -R806658-01      ORD -RG10B30-1078
                 LABN-G603A-AC-05      PE  -C1M              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - 07-01-79   UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO IMPROVE THE INVESTIGATORS' EARLIER WORK ON THIS MODEL BY OPTIMIZING COMPUTER PROGRAMS,
                  VALIDATING THE MODEL, DEVELOPING AN ALGORITHM FOR ACIDITY OF PRECIPITATION, AND APPLY THE MODEL TO
                  PROJECTED SO2 EMISSIONS. APPROACH: TO UTILIZE LITERATURE FOR MODEL PHYSICS AND CHEMISTRY, AND USE
                  EPA EMISSIONS AND AIR QUALITY DATA FOR VALIDATION OF MODEL RUNS.
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*PROJECT: 005104-ANALYSIS AND ASSESSMENT OF INCINERATED MUNICIPAL SLUDGE ASHES AND
                 LEACHATE
                   TASK =CC36 -S1TB24 **EPA=R806690-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/79 - 03/81 :   FY80
  EPA  OFFICER.: AE ERALP                  EPA/MERL - CINC                     FTS-8-684-7663
  INVESTIGATOR.: TL THEIS                  UNIV OF NOTRE DAME                  DEPT OF CIVIL ENGIN
  MILESTONES...: 11/79 -FIRST INTERIM REPORT
                 02/80 -SECOND INTERIM REPORT
                 12/80 -FINAL REPORT SUBMITTED
  PROGRAM ID...: (PE-C36 )          URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 30-99     ENVIRONMENTAL ENGINEERING
  ORDIS CODES..: RECN-005104         SSIE-GMA  6231 1      EPA -R806690-01       ORD -RC10B30-5080
                 PE  -C36            LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVE WILL BE TO CHARACTERIZE THE BULK AND SURFACE PROPERTIES OF
                   INCINERATED MUNICIPAL WASTE SLUDGES, TO RELATE THESE CHARACTERISTICS TO THE AMOUNT OF METALS WHICH
                   ARE LEACHABLE INTO AQUEOUS SOLUTION. THIS WILL INCLUDE AN EVALUATION OF THE MATERIALS UNDER THE
                   GUIDELINES BEING FORMULATED UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (P.L. 94-580)
                   APPROACH: THE ABOVE OBJECTIVES WILL BE ACCOMPLISHED BY THE FOLLOWING OUTPUT PLAN: 1) TO PREPARE AN
                   INTERIM REPORT ON THE CURRENT LEVEL OF UNDERSTANDING OF THE PHYSICAL AND CHEMICAL CHARACTERISTICS
                   OF MUNICIPAL SLUDGE, 2) TO PREPARE AN INTERIM REPORT ON THE ANALYTICAL PROCEDURES IN
                   CHARACTERIZATION, AND 3) CONDUCT LABORATORY STUDIES AND PRESENT THE FINDINGS IN A FINAL REPORT.


*PROJECT: 005115-FEASIBILITY OF AUTOMATED COMBINED SEWER SYSTEMS ALLIED WITH METROPOLITAN
                 FLOOD WARNING SYSTEMS
                   TASK =CC35 -S1T078 **EPA=R806702     ** (GRANT)
                   STARTING/ COMPLETION DATE : 07/79 - 02/81 :   FY81
  EPA  OFFICER.: DC AMMON                  UNKNOWN OFFICE
  INVESTIGATOR.: MB MCPHERSON              AMERICAN SOC OF CIVIL ENG           RES & STANDARDS SERVS
  MILESTONES...: 11/79 -CONTINUATION FUNDING PACKAGE PROCESSED
                 12/79 -RESULTS ON RADAR TECHNOLOGY
                 09/80 -SCOPE OF WORK COMPLETED
                 02/81 -FINAL REPORT PUBLISHED W/PROJECT SUMMARY
  PROGRAM ID...: (PE-C35 )          WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005115         SSIE-GMA  6214 2      EPA -R806702          ORD -RC10B30-1081
                 LABN-C822A-S1T078   PE  -C35
  PROJ STATUS..: ACTIVE -MULTIYEAR   INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVES OF THIS PROJECT ARE TO EVALUATE THE FEASIBILITY OF AUTOMATED COMBINED
                   CONTROL SYSTEMS UTILIZING INNOVATIVE RADAR SYSTEMS AND TO DEVELOP A STATE-OF-THE-ART REPORT THAT
                   INTEGRATES TECHNOLOGIES FROM VARIOUS RELEVANT DEVELOPMENTAL PROJECTS. APPROACH: THE APPROACH TAKEN
                   WILL BE TO INVESTIGATE CALIBRATED DIGITAL RADAR SYSTEMS FOR PRECIPITATION PREDICTIONS, STORM
                   CHARACTERIZATION AND STORM TRACKING, INCLUDING IMPLICATIONS FOR TRADITIONAL AND AUTOMATED COMBINED
                   SEWER SYSTEM DESIGN AND OPERATION.
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*PROJECT: 005573-WET-WEATHER MONITORING GUIDELINES

                  TASK =CC35 -S1T056 **EPA=R806704     ** (GRANT)
                  STARTING/ COMPLETION DATE : 07/79 - 03/81 :   FY81
EPA  OFFICER.: DC AMMON                UNKNOWN OFFICE
INVESTIGATOR.: LS TUCKER               DENVER URBAN DRNAGE & FLD          DENVER                    CO 80211
               WB SONNEN               W B SONNEN CONSULT ENG             WALNUT CREEK              CA 94598
MILESTONES...: 09/79 -REVIEW "208" MONITORING PROGRAMS AND IDENTIFY MONITORING NEEDS
               12/79 -LITERATURE REVIEW COMPLETE
               08/80 -DESIGN AND SUBMIT USER'S MANUAL
               12/80 -PREPARE AND SUBMIT FINAL REPORT
               03/81 -PUBLISH FINAL REPORT
PROGRAM ID...: (PE-C35 )           WASTEWATER SYSTEMS CONTROL TECHNOLOGY
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005573        SSIE-GMA  5872 2      EPA -R806704         ORD -RC10830-1080
               LABN-C822A-S1T056  PE  -C35
PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
               CATEGORY-RESEARCH  ACCESS-PUBLIC
ABSTRACT.....: OBJECTIVE: THE PURPOSE OF THIS STUDY IS TO PRODUCE A USER'S MANUAL/GUIDEBOOK FOR WET-WEATHER FLOW
                QUALITY AND QUANTITY MONITORING PROVIDING A STATISTICALLY DEFENSIBLE MONITORING PROTOCOL AND
                MINIMUM REQUIREMENTS OF A DATA SET TO SATISFY ANY POSSIBLE MONITORING OBJECTIVES AND ASSURE
                TRANSFERABILITY OF DATA. APPROACH: VARIOUS NEEDS OR OBJECTIVES FOR WET-WEATHER MONITORING WILL BE
                IDENTIFIED AND ELABORATED UPON IN TERMS OF IMPORTANCE AND SIGNIFICANCE OF THE TYPES AND FREQUENCY
                OF SAMPLING ONE MIGHT CHOOSE TO EMPLOY.

*PROJECT: 005119-RESEARCH CONFERENCE ON STORMWATER IMPACT ON RECEIVING WATER BODIES

                  TASK =CC35 -S2T032 **EPA=R806715     ** (GRANT)
                  STARTING/ COMPLETION DATE : 08/79 - 06/80 :   FY80
EPA  OFFICER.: RB TURKELTAUB           EPA/MERL - CINC                    FTS-8-340-6675
INVESTIGATOR.: YA YOUSEF               STATE UNIV OF FLORIDA              SCH OF ENGINEERING
MILESTONES...: 11/79 -CONFERENCE
               05/80 -DRAFT OF CONFERENCE PROCEEDINGS
               06/80 -CONFERENCE PROCEEDINGS
               12/80 -PROCEEDINGS PUBLISHED
PROGRAM ID...: (PE-C35 )           WASTEWATER SYSTEMS CONTROL TECHNOLOGY
FINAL OUTPUT.: CONFERENCE PROCEEDINGS
MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
ORDIS CODES..: RECN-005119        SSIE-GMA  6211 1      EPA -R806715         ORD -RC10830-1080
               LABN-C822A-S2T032  PE  -C35              LABT-EET
PROJ STATUS..: ACTIVE -MULTIYEAR  INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
               CATEGORY-RESEARCH  ACCESS-PUBLIC                              PREVIOUS- 06-28-80
ABSTRACT.....: OBJECTIVE: A) TO PROVIDE AN OPPORTUNITY FOR RESEARCHERS, PRACTITIONERS AND OTHERS TO RECEIVE AN
                UP-DATE ON THE STATE-OF-THE-ART AND TO LEARN ABOUT RESEARCH FINDINGS DEALING WITH STORMWATER IMPACT
                ON RECEIVING WATER BODIES, AND B) TO GATHER TOGETHER THOSE WHO ARE INTERESTED IN STORMWATER EFFECTS
                AND CONTROL FOR DIALOGUE REGARDING THE IMPLICATIONS AND APPLICATIONS OF CURRENT RESEARCH RESULTS.
                APPROACH: THE UNIVERSITY OF CENTRAL FLORIDA (UCF) THROUGH THE COLLEGE OF ENGINEERING AND THE
                DIVISION OF CONTINUING EDUCATION PROPOSES TO CONDUCT A TWO-DAY CONFERENCE ON STORMWATER IMPACT ON
                RECEIVING WATER BODIES TO BE HELD DURING NOVEMBER 26-27, 1979.
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U.S. ENVIRONMENTAL PROTECTION AGENCY	*Form Approved* *OMB No. 158-R0081*
	PROJECT NO. *(Do not use this space)*
NOTICE OF RESEARCH PROJECT	SSIE
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA R806730-01

TITLE OF PROJECT

Development and Validation of Model Systems for Evaluating Toxic Compounds

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. James Fenters- Principal Investigator - Head, Microbiology Research
Ms. Catherine Aranyi - Co-Investigator - Senior Environmental Health Scientist
Dr. Leonard Schiff - Senior Microbiologist
Ms. Jeannie Bradof - Associate Microbiologist

NAME AND ADDRESS OF APPLICANT INSTITUTION

IIT Research Institute
Life Sciences Division
10 West 35th Street
Chicago, IL 60616

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

A comprehensive study will be conducted to evaluate the effects of known toxic compounds on the pulmonary system. The many physico-chemical variables of the aerosolized toxic materials will be considered. Acute, intermittent, and chronic inhalation studies will be performed on known toxic compounds of defined size and concentration. The acute and intermittent exposures to toxicants will form the basis for the appropriate design of chronic studies. The data also will be compared to data on these same compounds from toxicologic tests other than inhalation studies. Data from chronic studies, using both the maximal no-effect levels and minimal-effect level determined in the acute and intermittent studies, will also be compared and analyzed in the same manner. After all experiments are completed, the test compounds will be ranked in order of toxicity. In addition, the *in vivo - in vitro* data will be correlated to determine if the animal model system and its associated *in vitro* tests could form the basis for future screening of compounds of unknown toxicity.

75.1

U.S. ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF RESEARCH PROJECT**	*Form Approved* *OMB No. 158-R0081*
	PROJECT NO. *(Do not use this space)* SSIE
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA R806730-01

TITLE OF PROJECT
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*PROJECT: 005216-X-RAY DIFFRACTION ANALYSIS OF DICHOTOMOUS FILTER SAMPLERS

                 TASK =GC2Q -000563 **EPA=R806769-01S1** (GRANT)
                 STARTING/ COMPLETION DATE : 09/79 - 11/82 :   FY80
  EPA  OFFICER.: RK STEVENS                EPA/ESRL - RTP                  FTS 8-629-3156
  INVESTIGATOR.: BL DAVIS                  SO DAKOTA SCHOOL OF MINES       INST. OF ATMOS. SCI.
  MILESTONES...: 08/80 -INTERIM REPORT ON CALIBRATION METHODS FOR X-RAY DIFFRACTION
                 08/80 -ANALYSIS OF AEROSOLS COLLECTED WITH DICHOTOMOUS SAMPLERS
                 08/82 -REPORT ON RESULTS OF X-RAY DIFFRACTION ANALYSIS OF AEROSOLS COLLECTED WITH DICH
  PROGRAM ID...: (PE-C2Q )         MEASURE SYS & INSTR. DEVEL FOR ENERGY REL POLL
  FINAL OUTPUT.: REPORT ON RESULTS OF X-RAY DEFRACTION ANALYSIS OF
                 AEROSOLS COLLECTED WITH DICHOTOMOUS SAMPLERS.
  MANDATE......: 10-02     CLEAN AIR ACT
  CURR. RESULTS: COMPARISON OF RESULTS OBTAINED WITH X-RAY FLUORESCENCE
                 ANALYSIS OF SAME SAMPLES.  XRF DATA BEING PROVIDED TO
                 ASSIST IN CALIBRATION OF X-RAY DIFFRACTION SYSTEM.
                 SOIL SAMPLES BEING OBTAINED TO DETERMINE MORPHOLOGICAL
                 CHARACTER OF AEROSOLS EMANATING FROM EROSION PROCESSES
                 WHICH MAY BE TRANSPORTED DOWNWIND OF EPA SAMPLING SITES.
  ORDIS CODES..: RECN-005216          SSIE-GMA  6168 1      EPA -R806769-01S1     ORD -RG10B30-1080
                 LABN-G832B-EA-202    PE  -C2Q              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: DEVELOP CALIBRATION AND ANALYSIS PROCEDURES MORPHOLOGY OF SIZE FRACTIONATED AEROSOLS.
                  APPROACH: DEVELOPMENT OF PROGRAMS TO DETERMINE THE CHEMICAL NATURE OF THE AEROSOLS COLLECTED WITH
                  DICHOTOMOUS SAMPLER FROM THE X-RAY DIFFRACTION SPECTRUM AND DEVELOPMENT OF AEROSOL STANDARDS TO
                  CALIBRATION X-RAY DIFFRACTION SYSTEM.
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*PROJECT: 005120-EVALUATION OF THE CHARACTERISTICS AND TREATABILITY OF URBAN RUNOFF
                 RESIDUALS
                   TASK =CC35 -S2T030 **EPA=R806785     ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/79 - 10/80 :   FY81
  EPA  OFFICER.: JW ENGLISH                UNKNOWN OFFICE
  INVESTIGATOR.: AE ZANONI                 MARQUETTE UNIV                      DEPT. OF CIVIL ENGIN
                 M  GUPTA                  REXNORD INC.
  MILESTONES...: 12/79 -DEVELOPMENT OF SAMPLING PROGRAM & SAMPLE COLLECTION SCHEDULE COMPLETE
                 03/80 -COMPLETE SAMPLE COLLECTION
                 07/80 -COMPLETE SLUDGE CHARACTERIZATION & TREATABILITY EVALUATION
                 02/81 -FINAL REPORT PUBLISHED W/SUMMARY
  PROGRAM ID...: (PE-C35 )             WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005120           SSIE-GMA  6217 2      EPA -R806785          ORD -RC10B30-1081
                 PE  -C35
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OVERALL OBJECTIVES OF THE PROJECT ARE TO CHARACTERIZE RESIDUAL SLUDGES GENERATED FROM
                  URBAN RUNOFF TREATMENT AND EVALUATE HANDLING AND DISPOSAL PROCESSES FOR THE SLUDGES PRODUCED. AS
                  PART OF THE CHARACTERIZATION WORK THE SLUDGES WILL BE COMPARED TO RAW PRIMARY SLUDGE AND COMBINED
                  SEWER OVERFLOW (CSO) SLUDGE. TREATABILITY STUDIES WILL ALSO INCLUDE AN EVALUATION OF THE EFFECTS OF
                  COMBINING STORMWATER GENERATED SLUDGE WITH CSO GENERATED SLUDGE AS WELL AS MUNICIPAL SLUDGE.
                  APROACH: URBAN RUNOFF SLUDGE SAMPLES WILL BE COLLECTED FROM ACTUAL TREATMENT FACILITIES AND
                  CHARACTERIZED. TREATMENT METHODS WILL BE ESTABLISHED DURING THE CHARACTERIZATION AND THE
                  AMENABILITY OF THE SLUDGES TO VARIOUS HANDLING PROCESSES WILL BE DETERMINED BY LABORATORY TESTING.
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U.S. ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF RESEARCH PROJECT** *(Please read reverse before completing)*	*Form Approved* *OMB No. 158-R0081*
	PROJECT NO.*(Do not use this space)* SSIE
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA R806789 01

TITLE OF PROJECT

Effects of Polyphosphates on Essential Metal Stores in the Rat

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Karl L. Gabriel, V.M.D., Ph.D., Professor, Department of Pharmacology, Medical College of Pennsylvania.

Meryle J. Melnicoff, Research Associate.

NAME AND ADDRESS OF APPLICANT INSTITUTION

Medical College of Pennsylvania, 3300 Henry Avenue,
Philadelphia, Pennsylvania 19129

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data)*. In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The purpose of this study is to determine whether certain polyphosphates found in drinking water, sodium hexametaphosphate, sodium tripolyphosphate, and potassium pyrophosphate, can cause depletion of essential metals from tissues of the rat. Weanling rats will be maintained on diets containing normal or minimal levels of four essential metals, and will receive drinking water containing various amounts of one of the polyphosphates under study. After 60 days, the animals will be sacrificed and the levels of zinc, manganese, copper, and chromium in selected tissues will be measured by atomic absorption.

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*PROJECT: 005185-FORMATION OF ATMOSPHERIC AEROSOLS II

                  TASK =GC05 -000234 **EPA=R806801-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/79 - 09/82 :    FY80
  EPA  OFFICER.: WE WILSON                 EPA/ESRL - RTP                    FTS 8-629-5381
  INVESTIGATOR.: KT WHITBY                 UNIV OF MINNESOTA                 DEPT OF MECH ENG
  MILESTONES...: 06/79 -BEGIN FIELD STUDY - VISTTA
                 06/80 -BEGIN FIELD STUDY - PEPE
                 09/82 -REPORT ON FORMATION OF ATMOSPHERIC AEROSOLS
  PROGRAM ID...: (PE-C05 )            TRANS. AND FATE - AIR
  FINAL OUTPUT.: REPORT ON FORMATION OF ATMOSPHERIC AEROSOLS
  MANDATE......: 10-02      CLEAN AIR ACT
  ORDIS CODES..: RECN-005185          SSIE-GMA  6203 1      EPA -R806801-01       ORD -RG10831-1080
                 LABN-G603A-AA-160    PE  -C05              LABT-EPE
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: (1) TO PARTICIPATE IN THE WESTERN VISTTA (VISIBILITY IMPAIRMENT DUE TO SULFUR
                  TRANSFORMANTION AND TRANSPORT IN THE ATMOSPHERE) STUDY DURING THE SUMMER OF 1979, AND IN THE
                  EASTERN PEPE'S (PERSISTENT ELEVATED POLLUTION EPISODES) STUDY DURING THE SUMMER OF 1980. (2) TO
                  PERFORM DATA ANALYSIS AND MODELING OF AEROSOL GROWTH MODELS AND THE INTEGRATION OF THESE INTO PLUME
                  MODELS. (3) DEVELOPMENTAL WORK WILL ALSO BE INITIATED ON A CLOUD DROPLET-AEROSOL SAMPLER, DESIGNED
                  TO FACILITATE TAKING SIMULTANEOUS DROPLET AND AEROSOL SAMPLES IN CLOUDS. APPROACH: TWO GROUND-BASED
                  MOBILE LABORATORIES WILL BE USED TO DO PHYSICAL/CHEMICAL CHARACTERIZATION OF THE AEROSOL, AND TO
                  DETERMINE AEROSOL NUCLEATION AND GROWTH RATES. THE VISTTA STUDY WILL RELATE THESE QUANTITIES TO
                  VISIBILITY IN THE VICINITY OF THE GRAND CANYON AND IN THE EASTERN U.S. A DICHOTOMOUS VIRTUAL
                  IMPACTOR WILL BE USED TO SEPARATE THE CLOUD DROPLETS AND THE COARSE PARTICLE MODE FROM THE FINE
                  PARTICLES. THE FINE FRACTION WILL BE PASSED THROUGH AN IMPACTOR FOR PURIFICATION AND SIZE
                  DISTRIBUTION DETERMINED USING AN ELECTRICAL AEROSOL ANALYZER.
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*PROJECT: 005100-A REVIEW AND EVALUATION OF THE INFLUENCE OF CHEMICALS ON THE
                 PERMEABILITY OF SOIL CLAYS
                  TASK =CC73 -S1T13E **EPA=R806825     ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/79 - 11/80 :   FY80
  EPA  OFFICER.: RE LANDRETH                EPA/MERL - CINC                  FTS-8-684-7871
  INVESTIGATOR.: KW BROWN                   TEXAS A & M UNIV                 DEPT OF SOIL & CROP SCI
                 LE DEUEL                   TEXAS A & M UNIV                 DEPT OF SOIL & CROP SCI
  MILESTONES...: 12/79 -INTERIM REPORT: A LITERATURE SURVEY
  PROGRAM ID...: (PE-C73 )             SOLID & HAZARDOUS WASTE
  MANDATE......: 10-05      RESOURCE CONSERVATION AND RECOVERY ACT
  ORDIS CODES..: RECN-005100           SSIE-GMA  6234 1      EPA -R806825       ORD -RC10B30-1079
                 PE  -C73              LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - 10-01-79  UPDATED-  06-28-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: 1) LITERATURE ON ORGANIC AS WELL AS INORGANIC SOLUTE EFFECTS ON PERMEABILITY WILL BE
                  REVIEWED AND SUMMARIZED FROM THE VIEWPOINT OF HAZARDOUS WASTE DISPOSAL. 2) LABORATORY TESTING WITH
                  AN INDIVIDUAL WASTE AND COMBINATION WASTES TO DETERMINE IF PERMEABILITY EFFECTS ARE LIKELY. 3)
                  DEVELOP A SHORT-TERM METHOD FOR CONTACTING A WASTE AND A SOIL TO DETERMINE IF PERMEABILITY
                  INCREASES ARE LIKELY. APPROACH: 1) MAJOR GROUPS WHO ARE WORKING ON OR HAVE WORKED ON THE TOPIC WILL
                  BE CONTACTED TO COLLECT UNPUBLISHED DATA ON THE INFLUENCE OF WASTES ON THE PERMEABILITY OF CLAY
                  LINERS. 2) A RANGE OF CHEMICALS WITH DIFFERENT MOBILITIES AND ANTICIPATED INFLUENCES ON THE CLAY
                  LINERS WILL BE EVALUATED. EMPHASIS WILL BE PLACED ON EVALUATING THE RELATIVE INFLUENCE ON THE
                  CHEMICALS CONSIDERED ON THE RANGE OF CLAY MATERIALS SO THAT PREDICTIONS CAN BE MADE AS TO THE
                  ANTICIPATED INFLUENCE OF SIMILAR CHEMICALS ON THE PERMEABILITY OF CLAY LINERS.

*PROJECT: 005118-DEVELOPMENT OF METHODS TO DEFINE WATER QUALITY EFFECTS OF URBAN RUNOFF

                  TASK =CC35 -S1T075 **EPA=R806828     ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 09/81 :   FY81
  EPA  OFFICER.: DC AMMON                   UNKNOWN OFFICE
  INVESTIGATOR.: JL MANCINI                 MANHATTAN COLLEGE                ENV ENG & SCI DEPT
                 DM DITORO                  MANHATTAN COLLEGE                ENV ENG & SCI DEPT
  MILESTONES...: 12/79 -CONTINUATION FUNDING PACKAGE PROCESSED
                 09/80 -INTERIM REPORT COMPLETE
                 12/80 -CONTINUATION FUNDING PACKAGE PROCESSED
                 05/81 -SCOPE OF WORK COMPLETED
                 09/81 -FINAL REPORT COMPLETED
                 12/81 -FINAL REPORT PUBLISHED W/ PROJECT SUMMARY
  PROGRAM ID...: (PE-C35 )             WASTEWATER SYSTEMS CONTROL TECHNOLOGY
  FINAL OUTPUT.: METHODOLOGY MANUAL
  MANDATE......: 10-01      FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005118           SSIE-GMA  6233 2      EPA -R806828       ORD -RC10B30-1081
                 LABN-C822A-S1T75      PE  -C35
  PROJ STATUS..: ACTIVE -MULTIYEAR     INFO-UPDATED          ENTERED - UNKNOWN   UPDATED-  11-20-80
                 CATEGORY-RESEARCH     ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE IS TO DEVELOP INFORMATION AND A METHODOLOGY FOR DEFINING CRITERIA FOR
                  WET-WEATHER WATER QUALITY STANDARDS. APPROACH: THE APPROACH INVOLVES DEVELOPMENT OF LOAD MATRICES
                  FOR GOVERNING POLLUTANTS AS A FUNCTION OF SIZE OF URBAN AREA AND SIZE AND FREQUENCY OF WET-WEATHER
                  EVENTS. THESE LOAD MATRICES WILL ACT AS INPUTS TO SHORT-TERM EFFECTS MATRICES THAT CONSIDER
                  RECEIVING WATER SIZE AND TYPE AND THE ORGANISM/CONTAMINANT TRANSFORMATIONS.
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79.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R806842 01

TITLE OF PROJECT

EXAMINATION OF MORTALITY DATA FROM MALIGNANT MELANOMA

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

John A. H. Lee M.D. Professor
Department of Epidemiology SC-36
School of Public Health
University of Washington, Seattle, WA 98195

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Washington
Seattle, WA 98195

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Describe the relationship of incidence and mortality rates from malignant melanoma of skin in a group of white populations who have migrated to different latitudes of residence in Australia and New Zealand; and the comparable relationship in Europe where the populations have been there for much longer. There is a close relationship between latitude of residence of whites in North America and mortality from malignant melanoma. Both the Australian and European distributions need more careful examination than they have received. The information will be relevant both to understanding the rapidly rising death rate from malignant melanoma in developed countries, and in forming an intelligent social response to the increase in UV flux to be expected from the reduction in the shielding by stratospheric ozone.

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*PROJECT: 005105-EVALUATION AND DEVELOPMENT OF TEMPERATURE CONTROL STRATEGIES TO MAXIMIZE
                 ORGANIC MATTER DEGRADATION IN STATIC PILE SEWAGE SLUDGE COM
                  TASK =CC36 -S1TB28 **EPA=R806829-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 12/80 :   FY80
  EPA  OFFICER.: AE ERALP                 EPA/MERL - CINC                  FTS-8-684-7663
  INVESTIGATOR.: MS FINSTEIN              RUTGERS UNIV                     DEPT. OF PLANT PATHOLOGY
                 J  CIRELLO               RUTGERS UNIV                     DEPT. OF PLANT PATHOLOGY
  MILESTONES...: 09/80 -REPORT SUBMITTED
  PROGRAM ID...: (PE-C36 )          URBAN SYS & TOXICS RESIDUAL MANAGE - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 30-99     ENVIRONMENTAL ENGINEERING
  CURR. RESULTS: NO CHANGE THE PROJECT HAS JUST STARTED
  ORDIS CODES..: RECN-005105          SSIE-GMA  6229 1      EPA -R806829-01       ORD -RC10B30-5080
                 PE  -C36             LABT-EET
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN     UPDATED-  11-20-80
                 CATEGOR/-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THE MAIN OBJECTIVE OF THIS PROPOSAL IS TO DEMONSTRATE THAT THE COMPOSTING PROCESS CAN BE
                  HASTENED BY USING TEMPERATURE CONTROL AS A PRIMARY PROCESS CONTROL PARAMETER. BENEFITS EXPECTED
                  FROM THE SUCCESSFUL COMPLETION OF THIS DEMONSTRATION ARE: A) MORE RAPID STABILIZATION - THEREBY
                  DECREASING SPACE AND FACILITY REQUIREMENTS; B) INSURING A WELL-STABILIZED END-PRODUCT; AND C)
                  MINIMIZING THE AMOUNT OF PROCESS RESIDUE NEEDING FINAL DISPOSITION. APPROACH: THE ABOVE OBJECTIVES
                  WILL BE ACCOMPLISHED BY EVALUATING VARIOUS TEMPERATURE CONTROL STRATEGIES WHILE BEING MINDFUL OF
                  THE INTERRELATEDNESS OF TEMPERATURE, MOISTURE, AND AERATION. THE FIELD EXPERIMENTS WILL BE
                  PERFORMED AT THE CAMDEN, NEW JERSEY TREATMENT PLANT SITE USING COMPOST PILES SPECIFICALLY OPERATED
                  FOR THIS RESEARCH.

*PROJECT: 005922-SUPERCRITICAL FLUID REGENERATION OF ACTIVATED CARBON FOR TREATING
                 PESTICIDE MANUFACTURING WASTEWATER
                  TASK =F610A-792360 **EPA=R806874      ** (GRANT)
                  STARTING/ COMPLETION DATE : 06/79 - 10/80 :   FY79
  EPA  OFFICER.: M  SAMFIELD              EPA/IERL - RTP                   FTS 8-629-2547
  INVESTIGATOR.: RP DEFILIPPI             ARTHUR D. LITTLE INC             CAMBRIDGE                 MA 02140
  PROGRAM ID...: (PE-610 )          INDUSTRIAL PROC. - WATER QUALITY
  MANDATE......: 20-11     DAA FOR WATER PLANNING AND STANDARDS
  ORDIS CODES..: RECN-005922          SSIE-GMA  6489        EPA -R806874          ORD -RF10B30-2080
                 PE  -610             LABT-EET
  PROJ STATUS..: PROJECT-ACTIVE       INFO-UPDATED          ENTERED - 06-28-80    UPDATED-  10-24-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                               PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: DEVELOP SOLVENT REGENERATION OF ACTIVATED CARBON BASED ON SUPER-CRITICAL FLUID TECHNOLOGY
                  AND TO APPLY THIS TO AUTHENTIC PESTICIDE MANUFACTURING WASTEWATERS. APPROACH: DOCUMENT PERFORMANCE
                  AND COST OF TECHNOLOGY.
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*PROJECT: 005130-A MULTIPLE PROCESS APPROACH FOR REMOVAL OF ORGANIC SUBSTANCES FROM
                 DRINKING WATER
                   TASK =CC61 -S1T091 **EPA=S806925-01  ** (GRANT)
                   STARTING/ COMPLETION DATE : 10/79 - 10/84 :   FY80
  EPA  OFFICER.: B  LYKINS               EPA/MERL - CINC
  INVESTIGATOR.: NV BRODTMANN            JEFFERSON PARISH WATER DEPT.      FTS 8-684-7209
                 W  KOFFSKEY             JEFFERSON PARISH WATER DEPT.      JEFFERSON              LA 70121
  MILESTONES...: 10/80 -INITIATE PILOT COLUMN STUDIES                      JEFFERSON              LA 70121
                 10/81 -INITIATE FULL SCALE CARBON ADSORPTION AND REACTIVATION SYSTEM
                 01/82 -INTERIM REPORT
                 10/83 -COMPLETE TESTING PROGRAM
  PROGRAM ID...: (PE-C61 )           DRINK WATER TREATMENT & GROUND WATER PROT
  MANDATE......: 10-15      SAFE DRINKING WATER ACT
                 20-13      DAA FOR DRINKING WATER
  ORDIS CODES..: RECN-005130
                 PE  -C61            SSIE-GMA  6210 1      EPA -S806925-01      ORD -RC10B30-1080
  PROJ STATUS..: ACTIVE -MULTIYEAR   LABT-EET
                 CATEGORY-RESEARCH   INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  11-20-80
                                     ACCESS-PUBLIC                              PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: THE PROJECT WILL EVALUATE OPERATIONAL MODES OF PRIOR GRANULAR ACTIVATED CARBON CONTACTORS
                  FOR ORGANIC REMOVAL. OPERATIONAL AND MAINTENANCE COSTS AND ENVIRONMENTAL EMISSIONS FROM ON-SITE
                  CARBON REACTIVATION. APPROACH: THE PROJECT INVOLVES CONSTRUCTION AND LONG TERM OPERATION OF A
                  MULTI-MODAL, PILOT AND LARGE SCALE GRANULAR ACTIVATED CARBON SYSTEM DESIGNED SPECIFICALLY FOR
                  REMOVAL OF ORGANIC SUBSTANCES. INTENSIVE ANALYSIS OF THE EFFLUENT OF EACH PROCESS WILL PROVIDE
                  DEFINITIVE INFORMATION REGARDING THE FATE OF MANY ORGANIC AND CERTAIN METAL INORGANICS IN ADDITION
                  TO MICROBIOLOGICAL DATA. OPERATIONAL EXPERIENCES AND COST DATA WILL BE COLLECTED.
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*PROJECT: 006621-RESPIRATORY CARCINOGENESIS OF DIESEL FUEL EMISSIONS AND RELATED
                 SUBSTANCES
                   TASK =HC01 -900400 **EPA=R806929     ** (GRANT)
                   STARTING/ COMPLETION DATE : 09/79 - 08/83 :   FY80
  EPA  OFFICER.: DE GARDNER                 EPA/HERL - RTP                       FTS 8-629-2531
  INVESTIGATOR.:    SCHEFNER                UNKNOWN
  MILESTONES...: 08/79 -START DOSE RANGE STUDIES WITH EXTRACTS
                 06/80 -BEGIN CHRONIC STUDY - DIESEL PARTICULATE
                 06/82 -COMPLETE CHRONIC STUDY, PHASE I.
                 09/82 -COMPLETE HISTOPATHOLOGY, PHASE I.
                 01/83 -PRELIMINARY REPORT, PHASE 1.
                 10/80 -START CHRONIC STUDY, PHASE 2.
                 10/82 -COMPLETE CHRONIC STUDY, PHASE 2.
                 02/83 -COMPLETE HISTOPATHOLOGY, PHASE 2.
                 05/83 -FINAL REPORT
  PROGRAM ID...: (PE-C01 )            HEALTH EFFECTS/ TRANS SOURCES  -AIR
  MANDATE......: 20-24     DAA FOR MOBILE SOURCE AIR POLLUTION CONTROL
  ORDIS CODES..: RECN-006621          SSIE-HZ 809004        EPA -R806929         ORD -RH10B30-2080
                 PE  -C01             LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - UNKNOWN    UPDATED-  10-24-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                              PREVIOUS- 06-28-80
  ABSTRACT.....:  THIS PROJECT IS DESIGNED TO DETERMINE IF THE EXTRACTS AND/OR PARTICLES PRESENT IN DIESEL FUEL
                  EMISSIONS POSSESS CARCINOGENIC OR COCARCINOGENIC ACTIVITY RELATIVE TO THE PULMONARY EPITHELIUM. IN
                  ADDITION THE RESULTS SHOULD INDICATE THE RELATIVE POTENCY OF THESE COMPOUNDS BY COMPARING THEIR
                  CARCINOGENICITY TO THAT OF OTHER MATERIALS OF KNOWN EPIDEMIOLOGIC SIGNIFICANCE (ROOFING TAR, COKE
                  OVEN EXTRACT AND CIGARETTE SMOKE CONDENSATE. THE INVESTIGATORS WILL UTILIZE THE INTRATRACHEAL
                  INSTILLATION METHOD OF SAFFIOTTI FOR THE ADMINISTRATION OF THE TEST SUBSTANCES. A WHOLE ANIMAL
                  MODEL WILL BE USED. THE SCHEDULED SACRIFICE OF HAMSTERS ON THE DOSERANGE STUDY OF DIESEL EXHAUST
                  EXTRACT AND THE OTHER THREE EXTRACTS AND CONDENSATES (COKE OVEN, ROOFING TAR, AND CIGARETTE SMOKE)
                  IS IN PROGRESS. OF THE FOUR MATERIALS ON TEST, ROOFING TAR EXTRACT PROVED TO BE THE MOST TOXIC ON A
                  WEIGHT BASIS. ANIMALS IN THE HIGH DOSE ROOFING TAR EXTRACT GROUP SHOWED A LOWER WEIGHT GAIN AND
                  CONSIDERABLE MORTALITY. HAMSTERS IN THE OTHER THREE HIGH DOSE GROUPS FREQUENTLY EVIDENCED EARLY
                  WEIGHT LOSS BUT SHOWED LITTLE OR NO MORTALITY. TEN ANIMALS FROM EACH OF THE SECOND AND THIRD DOSE
                  LEVEL GROUPS (5 AND 3 MG/WK) OF EACH TEST SUBSTANCE WILL BE PROCESSED FOR COMPLETE HISTOPATHOLOGIC
                  DIAGNOSIS AS WILL APPROPRIATE CONTROL HAMSTERS. ALL ANIMALS WILL BE EXAMINED FOR LESIONS AT
                  NECROPSY AND THE RESPIRATORY TRACTS WILL BE PRESERVED FOR FUTURE REFERENCE AS NEEDED.
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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA [illegible]

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Adaptation of the Simplex Gasification Process to Dewatered Sewage Sludge

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Project Director at the New York State Energy Research and Development Authority - Thomas E. Mullen

Principal Investigator at Dynecology Inc. - Dr. Helmut W. Schulz, Ph.D.

NAME AND ADDRESS OF APPLICANT INSTITUTION

New York State Energy Research and Development Authority
Agency Building No. 2
Rockefeller Plaza, Albany, New York 12223

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The Chemical Engineering Department of Columbia University, working in conjunction with Dynecology, Inc. has developed the Simplex process for the gasification of briquettes composed of an Eastern bituminous caking coal mixed with refuse derived fuel (RDF). The U.S. Environmental Protection Agency and the New York State Energy Research and Development Authority intend to sponsor a research effort to adapt this process to the gasification of dewatered sewage sludge. This variation is called the Sanoplex process.

The basic Simplex process, which involves the admixture of 50 percent coal with the solid wastes (weight basis) offers several advantages beyond existing solid waste energy recovery. The mixture produces a gas with four times the energy value, per volume of fuel input, of a gas produced from RDF alone. Simultaneously, the presence of cellulosic wastes in the briquettes allows the gasification of Eastern bituminous coal without the caking problems normally associated with fixed bed gasification.

The three basic objectives to be addressed in the proposed Sanoplex process development study are:

1. Demonstration and optimization of the Sanoplex briquette formation using a mixture of coal, shredded solid waste and dewatered sewage sludge.
2. Demonstration of acceptable caking properties for the Sanoplex briquettes in a bench scale furnace.
3. Formulation of recommendations for a bench scale gasifier test program and a pilot test program for the Sanoplex process.

The work scope for this effort will include the production and procurement of dewatered sewage sludge from the experimental fabrication of Sanoplex briquettes; the determination of physical properties of Sanoplex briquettes; and the determination of caking properties of Sanoplex briquettes in an experimental resistance furnace.

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*PROJECT: 005676-MEASUREMENT OF INGESTION OF CADMIUM, LEAD, ZINC, AND CALCIUM IN SELECTED
                 POPULATIONS IN THE UNITED STATES
                  TASK =DC27 -1E0017 **EPA=R806939     ** (GRANT)
                  STARTING/ COMPLETION DATE : 01/80 - 07/81 :   FY80
  EPA  OFFICER.: NE KOWAL                  EPA/HERL - CINC                  FTS 8-684-7477
  INVESTIGATOR.: DE JOHNSON                SOUTHWEST RESEARCH INST          SAN ANTONIO             TX 78284
  MILESTONES...: 07/81 -FINAL REPORT
  PROGRAM ID...: (PE-C27 )             HEALTH EFFECTS - WATER QUALITY
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
                 10-05     RESOURCE CONSERVATION AND RECOVERY ACT
  ORDIS CODES..: RECN-005676          SSIE-GMA  6686        EPA -R806939         ORD -RD10830-1080
                 PE  -C27             LABT-OHR
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO MONITOR INDIVIDUALS IN THE UNITED STATES TO ESTIMATE DAILY INGESTION OF CADMIUM AND
                  LEAD. TO INVESTIGATE DIFFERENCES BETWEEN SOCIOECONOMIC GROUPS, AMONG PEOPLE OF DIFFERENT AGES, AND
                  AMONG PEOPLE OF DIFFERENT ETHNIC BACKGROUNDS. APPROACH: TWO 24-HOUR COMPOSITE FECES SAMPLES WILL BE
                  OBTAINED FROM EACH PARTICIPANT AND ANALYZED IN DUPLICATE FOR CADMIUM AND LEAD, AND ALSO FOR ZINC
                  AND CALCIUM, ELEMENTS THAT ARE KNOWN TO AFFECT THE ABSORPTION OF CADMIUM. STATISTICAL ANALYSIS OF
                  THE TOTAL AMOUNTS OF THE STUDY METALS WILL BE USED TO DETERMINE WHERE DIFFERENCES LIE AMONG STUDY
                  GROUPS. PERSONAL INFORMATION ON THE PARTICIPANTS, INCLUDING SMOKING HISTORY, WILL BE OBTAINED AND
                  CORRELATED WITH THE METAL DATA.

*PROJECT: 005164-DEVELOPMENT OF MONITORING METHODS TO DETERMINE THE PRESENCE OF MUTAGENIC
                 COMPOUNDS IN SOIL AND CROPS FROM LAND DISPOSAL OF SLUDGE
                  TASK =DC27 -1E0005 **EPA=R807009     ** (GRANT)
                  STARTING/ COMPLETION DATE : 09/79 - 09/81 :   FY80
  EPA  OFFICER.: NE KOWAL                  EPA/HERL - CINC                  FTS 8-684-7477
  INVESTIGATOR.: PK HOPKE                  UNIV OF ILLINOIS                 AGRIC/ECON DEPT
                 MJ PLEWA                  UNIV OF ILLINOIS                 AGRIC/ECON DEPT
  MILESTONES...: 09/81 -REPORT ON USE OF MAIZE WAXY-LOCUS ASSAY FOR MUTAGENESIS ASSAY OF SLUDGE-AMENDED
  PROGRAM ID...: (PE-C27 )             HEALTH EFFECTS - WATER QUALITY
  FINAL OUTPUT.: REPORT ON USE OF MAIZE WAXY-LOCUS ASSASY
                 FOR MUTAGENESIS ASSAY OF SLUDGE-AMENDED SOIL.
  MANDATE......: 10-01     FEDERAL WATER POLLUTION CONTROL ACT
  ORDIS CODES..: RECN-005164          SSIE-GMA  6174 1      EPA -R807009         ORD -RD10830-1080
                 LABN-D607A-011C      PE  -C27              LABT-OHR
  PROJ STATUS..: ACTIVE -MULTIYEAR    INFO-UPDATED          ENTERED - 10-01-79   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: TO DEVELOP A HIGHER-PLANT MUTAGENIC ASSAY OF SLUDGE AND SLUDGE-AMENDED SOIL. APPROACH:
                  UTILIZE MAIZE (CORN) PLANTS WITH WAXY LOCUS MUTATION, AND CALIBRATE AGAINST STANDARD IN VITRO
                  MUTAGENESIS ASSAY SYSTEMS.
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U.S. ENVIRONMENTAL OTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA R807022 01

TITLE OF PROJECT

Saginaw & Pine Rivers In-Place Pollutants Mitigation Feasibility Study for PCBs & PBBs

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Jim Sygo	ECMPDR Environmental Section	Chief Planner
Dale Raven	ECMPDR Environmental Section	Regional Planner
Tom Goergen	ECMPDR Environmental Section	Regional Planner
Clifford Rice	University of Michigan, Great Lakes Research Division	
David White	" " " " " " "	

NAME AND ADDRESS OF APPLICANT INSTITUTION

East Central Michigan Planning and Development Region
P. O. Box 930, 500 Federal Avenue
Saginaw, MI. 48606

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

This project proposes to further examine the concentration levels and the spacial extent to which the bottom sediments have been contaminated in the Pine and Saginaw Rivers in east central Michigan.

The Pine and Saginaw River bottom sediments have documented deposits of polybrominated biphenyls (PBBs) and polychlorinated biphenyls (PCBs) respectfully. The reported levels of contamination in these rivers indicates that there is cause for concern over the possible contamination of the Bay City, Michigan water supply as well as perpetuating the contamination of fish and wildlife in the area.

The project will identify the most effective means by which to manage or remove the in-place pollutants in question based upon an analysis of risk versus benefit potentials. The project will also examine alternative cleanup and management strategies to be considered for implementation.

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                                       UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
      REPORT: ORDCONV (VERSION V2.6)    * OFFICE OF RESEARCH AND DEVELOPMENT *
                                             EPA GRANT PROJECT DESCRIPTIONS
      RUN DATE: 12/05/80                   * O R D I S  D A T A  E X T R A C T *                       PAGE-    84

*PROJECT: 005836-DIRECT FILTRATION STUDIES OF THE REMOVAL OF TRIHALOMETHANE PRECURSORS

                 TASK =CC61 -S1T086 **EPA=R807034     ** (GRANT)
                 STARTING/ COMPLETION DATE : 01/80 - 07/82 :   FY80
  EPA OFFICER.: GS LOGSDON                 EPA/MERL - CINC                   FTS 8-684-7228
  INVESTIGATOR.: JK EDZWALD                CLARKSON COLLEGE OF TECH          SCH OF ENG/CIV ENG
  MILESTONES...: 07/81 -INTERIM REPORT PUBLISHED
                 07/82 -FINAL REPORT
  PROGRAM ID...: (PE-C61 )          DRINK WATER TREATMENT & GROUND WATER PROT
  FINAL OUTPUT.: FINAL REPORT
  MANDATE......: 10-15     SAFE DRINKING WATER ACT
                 20-13     DAA FOR DRINKING WATER
  CURR. RESULTS: EARALIER LIMITED STUDIES BY EDZWALD SHOW DIRECT FILTRATION
  ORDIS CODES..: RECN-005836         SSIE-GMA  6578        EPA -R807034        ORD -RC10830-5080
                 PE  -C61            LABT-EET
  PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL         ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: PURPOSE OF PROJECT IS TO LEARN HOW TO ACHIEVE MAXIMUM TRIHALOMETHANE PRECURSOR REMOVAL BY
                  DIRECT FILTRATION. OPTIMUM TREATMENT CONDITIONS WILL BE IDENTIFIED. OTHER OBJECTIVES ARE EVALUATION
                  OF SEASONAL EFFECTS OF RAW WATER QUALITY, INVESTIGATION OF OPERATING PARAMETERS THAT MIGHT INDICATE
                  PRECURSOR REMOVAL, AND DEVELOPMENT OF A JAR TEST TECHNIQUE TO PREDICT ABILITY OF COAGULANT AIDS OR
                  FILTER AIDS TO REMOVE PRECURSOR FROM DRINKING WATER. APPROACH: STUDY WILL USE TWO SURFACE WATERS,
                  RAQUETTE R. AT POTSDAM AND GLENMORE RESERVOIR AT ONEIDA. PHASE I WILL BE JAR TEST STUDIES TO FIND
                  EFFECTIVE POLYMERS AND CONDITIONS OF TREATMENT. PHASE II WILL BE BENCH SCALE WITH SMALL FILTER
                  COLUMNS (ABOUT 0.2L/M). PHASE III WILL BE 20 GPM PILOT PLANT TESTS DONE AT TREATMENT PLANTS AT
                  POTSDAM AND ONEIDA. PILOT PLANT DATA WILL BE COMPARED WITH RESULTS OBTAINED BY CONVENTIONAL
                  TREATMENT AT THE TWO PLANTS. FILTERED AND RAW WATERS WILL BE CHLORINATED AND ANALYZED FOR
                  TRIHALOMETHANES. POSSIBLE SURROGATES SUCH AS COLOR, FLUORESCENCE, AND TOTAL ORGANIC CARBON WILL BE
                  STUDIED.
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84.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE 807058-01
EPA

TITLE OF PROJECT
Tissue Cadmium Concentrations and related health effects in groups with high cadmium intake via food.

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr Tord Kjellström, MRC Senior Research Fellow, Department of Community Health

Dr Joan MacKenzie, Lecturer, Department of Nutrition (University of Otago, Dunedin)

NAME AND ADDRESS OF APPLICANT INSTITUTION
University of Auckland, Private Bag, Auckland, New Zealand

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Objectives : to measure the relationship between cadmium intake via different types of food and cadmium concentrations in serum, whole blood, urine and hair and to measure the exposure and effects of cadmium in oysters in a group with extreme oyster consumption.

Approach : Four volunteers are studied in 14-day periods after consuming one high cadmium meal (about 500 ug). Feces is collected daily and urine, blood and serum are collected at frequent intervals. Brilliant blue is used as a fecal marker. The high cadmium meals to be used are: oysters, spiked tap water, polluted rice. Cadmium is analysed in all samples and the changes over time evaluated. About 100 oyster canning workers and oyster fishermen are studied before and during the oyster fishing season. Some of the people consume many dozens of oysters per day and thus the daily cadmium exposure may be several hundred ug. Feces, urine, blood and hair is collected in order to measure exposure, uptake and body burden. Cadmium concentrations are analysed in all samples. In some samples selenium, copper and zinc are also analysed to evaluate trace element interactions. In urine, Beta-2-micrglobulin, glucose, phosphate, calcium and creatinine are analysed to measure cadmium effects. The cadmium concentrations in samples of different shellfish will be analysed to evaluate exposures.

Current plan or progress : The project has not started yet, but preparatory work on analytical methods and sample collection procedures is under way.

84.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE R-807085-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT
Thermoregulation: Long-term microwave effects.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Eleanor R. Adair, Ph.D.	Associate Fellow	Principal Investigator
Robert O. Rawson, Ph.D.	Fellow	Investigator
James D. Hardy, Ph.D.	Fellow Emeritus	Consultant

NAME AND ADDRESS OF APPLICANT INSTITUTION

The John B. Pierce Foundation of Connecticut, Inc.
290 Congress Avenue
New Haven, CT 06519

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Since microwaves have potential to heat both peripheral and deep body tissues, chronic exposure to low energy levels (below 10 mW/cm^2) may have consequences for the ability of warm-blooded biological species to regulate their body temperature. This research project will identify and measure changes in thermoregulatory response systems, behavioral and physiological, that may occur when squirrel monkeys are exposed to 12.3 cm microwaves 40 hours/week for a minimum of 3 months. Microwave energies will range from 5 to 50% of the current U.S. exposure standard at controlled environmental temperatures (range = 25° - 35°C). We will examine changes in metabolic rate, sweating, regulated body temperature level, and behavioral responses by which the monkeys select a preferred environmental temperature. Analysis of cardiovascular adjustments will be emphasized including alteration of the vasomotor state of peripheral blood vessels and the specific ambient temperature zone where shivering and sweating are absent (zone of thermoneutrality). The ultimate goal is to evaluate the impact of comparable disturbances on human thermoregulatory function.

84.3

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE 807155-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Bioassay Determination of Algal-Available Phosphorus in Suspended Sediments of Great Lakes Tributaries

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Joseph V. DePinto, Department of Civil and Environmental Engineering, Assistant Prof.
Thomas C. Young, Department of Civil and Environmental Engineering, Assistant Prof.

NAME AND ADDRESS OF APPLICANT INSTITUTION

Clarkson College of Technology, Division of Research
Potsdam, New York 13676

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Current estimates of the effect of total phosphorus loadings on the Great Lakes are complicated by the lack of information on the fraction of the phosphorus input that is available for algal growth or becomes available while the exogenous suspended material is in the water column. In order to satisfy the needs of nutrient-phytoplankton models in this area a study with the following objectives has been proposed:

1) to determine for a variety of Great Lakes Tributaries the rate at which the suspended sediment phosphorus becomes available for algal uptake when exposed to receiving lake water conditions;

2) to physically and chemically characterize the tributary suspended sediments and to relate this characterization to land use and particular pollution sources;

3) to develop a methodology that can be used to estimate the rate of available phosphorus release from tributary suspended sediments based on their physical and chemical characterization and on the chemical and biological conditions of the receiving lake water.

In order to directly bioassay the rate at which phosphorus initially on tributary sediments is released taken and then taken up by algae, a dual culture diffusion apparatus has been devised. This apparatus allows a unialgal assay culture to share the same soluble medium with the river sediments without cross-contamination of particulates. The rate at which phosphorus is taken up by the assay culture can be used to determine the rate of phosphorus release from the sediments.

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*PROJECT: 005812-EVALUATION & DEMONSTRATION OF MICROPROCESSOR CONTROL FOR VOC EMISSIONS
                 REDUCTION
                   TASK =B604 -000949 **EPA=R807083     ** (GRANT)
                   STARTING/ COMPLETION DATE : 08/79 - 08/81 :   FY79
  EPA  OFFICER.: CH DARVIN                  EPA/IERL - CINC
  INVESTIGATOR.: M  HEUERTZ                 CHEMICAL COATERS ASSN.           FTS 8-684-4491
  PROGRAM ID...: (PE-604 )            INDUSTRIAL PROC. - AIR            WHEATON                      IL 60187
  CURR. RESULTS: THE OUTPUT OF THIS PROJECT WILL BE A DEMONSTRATION AND REPORT
                 REPORT ON MICROPROCESSOR CONTROL OF A VOC EMITTING SOURCE
                 INCLUDED ALSO AS AN OUTPUT WILL BE A TECHNICAL DESIGN MANUAL
                 DESIGN ON THE USE AND IMPLEMENTATION OF MICROPROCESSER
                 TECHNOLOGY FOR ENERGY CONVERSATION AND VOC POLLUTION
                 REDUCTION FROM METAL COATING PROCESSES.
  ORDIS CODES..: RECN-005812          SSIE-GMA  6635       EPA -R807083        ORD -RB10830-3079
                 PE  -604             LABT-EET
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - 06-28-80   UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THIS PROJECT WILL DEMONSTRATE THE USE OF MICROPROCESSOR TO CONTROL VOC EMISSIONS AND
                  CONSERVE PROCESS ENERGY. WITH INSTANTANEOUS PROCESS CONTROL, OPERATION CLOSER TO THE LEL WILL
                  OCCUR, THUS REDUCING DILUTION AIR AND REDUCING ENERGY REQUIREMENTS FOR THE PROCESS AND FOR
                  INCINERATION. SUCCESSFUL DEMONSTRATION OF THE USE OF MICROPROCESSORS WILL RESULT IN A CONTROL
                  OPTION THAT IS BOTH EFFICIENT AND ECONOMICAL, MAKING THE USE OF HEAT RECOVERY MUCH MORE EFFICIENT
                  AND ATTRACTIVE. APPROACH: DESIGN, DEVELOPMENT AND OPERATION OF APPLICABLE COMPUTER TECHNOLOGY WILL
                  BE CONDUCTED. AN OPERATIONAL FACILITY WILL THEN BE USED AS A HOST SITE TO DEMONSTRATE THE TOTAL
                  CONTROL CONCEPT.

*PROJECT: 005455-MUSSELS AND OYSTERS AS BIOLOGICAL INDICATORS OF RADIONUCLIDE PULLUTION
                 OF U.S. COASTAL WATERS
                   TASK =P775 -000043 **EPA=R807181     ** (GRANT)
                   STARTING/ COMPLETION DATE : 00/79 - 12/83 :   FY79
  EPA  OFFICER.: W  GALLOWAY                EPA/ERL - NARR
  INVESTIGATOR.: VT BOWEN                   WOODS HOLE OCEAN INST            FTS 8-838-4843
  MILESTONES...: 12/83 -FINAL REPORT                                         WOODS HOLE                   MA 02543
  PROGRAM ID...: (PE-775 )            ANTICIPATORY  R & D
  MANDATE......: 30-99    MARINE ECOLOGY
  ORDIS CODES..: RECN-005455          SSIE-GMA  6269       EPA -R807181        ORD -RP10830-3079
                 PE  -775             LABT-EPE
  PROJ STATUS..: PROJECT-COMPLETED    INFO-UPDATED         ENTERED - UNKNOWN   UPDATED-  11-20-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC                            PREVIOUS- 06-28-80
  ABSTRACT.....: OBJECTIVE: TO ESTABLISH A MORE SECURE BASIS FOR THE USE OF SESSILE MOLLUSCS AS BIOLOGICAL
                  ACCUMULATORS FOR RADIOCHEMICAL POLLUTION MONITORING AND FOR THE INTERPRETATION OF MOLLUSC ANALYSES;
                  ALSO TO CLARIFY THE EVIDENCE FOR SOME LOCAL HOT SPOTS OF POLLUTION THAT MIGHT BE INFERRED FROM THE
                  EXISTING THREE YEARS OF MONITORING DATA. APPROACH: APPROACH WILL INCLUDE MONTHLY COLLECTIONS OF
                  MUSSELS OR OF OYSTERS AT 9 OR 10 PLACES SELECTED FROM THE EXISTING NETWORK, ANNUAL COLLECTIONS AT
                  ABOUT 15 OTHER PLACES, A SERIES OF TRANSPLANTATION EXPERIMENTS, BOTH FROM MORE TO LESS POLLUTED
                  LOCATIONS AND THE REVERSE, AND FROM COAST TO COAST; ALGAE, SEDIMENT AND SUSPENDED MATTER SAMPLES
                  FROM AS MANY AS POSSIBLE OF THE BIVALVE SAMPLING LOCATIONS. ALL SAMPLES WILL BE ANALYZED
                  RADIOCHEMICALLY FOR 137CS, 239, 240PU, 241AM, AND FOR CM AND 238PU IF MEASURABLE.
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85·1

U.S. ENVIRONMENTAL OTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. (Do not use this space)
SSIE R807104-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Experimental Field Studies to Evaluate the Effects of Acidification on a Stream Ecosystem

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Gene E. Likens, Ph.D. (Principal Investigator), Professor of Ecology
Ronald J. Hall, Ph.D. (Co-Investigator), Postdoctoral Research Associate

NAME AND ADDRESS OF APPLICANT INSTITUTION

Cornell University, Office of Sponsored Programs, 123 Day Hall
Ithaca, New York 14853

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

It is proposed to conduct experimental field studies on the impact of low pH stress on a mountain stream ecosystem. Our experiments are designed to determine how and to what extent low pH levels affect nutrient cycling and energy flow of a natural stream, which is subjected to inputs of strong acids (H_2SO_4 and HNO_3) from incident precipitation.

We plan to simulate hydrogen ion stress from spring snowmelt and from ambient precipitation. The pH will be lowered to three levels: 5.0, 4.0, and 3.0.

In experimental and reference sections the following determinations will be made:

1. Comprehensive chemical concentrations in stream water
2. Drift densities of invertebrates and vertebrates
3. Particulate organic matter in transport
4. Biomass changes in invertebrate and vertebrate drift at the different pH levels
5. Changes in buffering capacity of stream sediments in relation to streamwater chemistry, particularly aluminum.

85.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE 807123-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Antibiotic resistant bacteria in potable water supplies.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Ramon J. Seidler, Associate Professor Microbiology

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of Microbiology, Oregon State University, Corvallis, Oregon 97331

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objectives are to measure the incidence, locations, and kinds of multiply antibiotic resistant coliforms which are present in potable water supplies. Of interest is whether brief periods of inadequate raw water treatment allows the entry of antibiotic resistant coliforms which subsequently persist, and enter the water distribution system. Samples will be processed from a variety of local supplies as well as from water supplies located in other regions of the country. Both biological and physical parameters of the samples will be measured.

RPI Proposal No. 11(01R)2302(1H)

85-3

U.S. ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF RESEARCH PROJECT** *(Please read reverse before completing)*	*Form Approved* *OMB No. 158-R0081*
	PROJECT NO. *(Do not use this space)* SSIE R807172-01
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA

TITLE OF PROJECT MICROBIOLOGICAL ALTERATIONS IN WATER QUALITY IN DISTRIBUTION SYSTEMS AND GRANULAR ACTIVATED CARBON

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Charles N. Haas
Assistant Professor of Environmental Engineering
Department of Chemical and Environmental Engineering

NAME AND ADDRESS OF APPLICANT INSTITUTION

RENSSELAER POLYTECHNIC INSTITUTE
Troy, New York 12181

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objective of the proposed research is the determination of microbial alterations in potable water during granular activated carbon (GAC) treatment, and in water distribution systems following conventional and conventional plus GAC treatment. Field studies at two water treatment plants and distribution systems and pilot plant GAC studies will investigate the response of coliform organisms, standard plate count organisms, acid—fast bacteria, and endotoxins to various process operating configurations.

85.4

U.S. ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF RESEARCH PROJECT** *(Please read reverse before completing)*	*Form Approved* *OMB No. 158-R0081* PROJECT NO.*(Do not use this space)* SSIE
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA R-807226 010

TITLE OF PROJECT

Analysis of Recreation in Response to Water Quality in the Pacific Northwest

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

G. David Faulkenberry, Principal Investigator Associate Professor of Statistics Study Director, Survey Research Center	Helen M. Lowry Project Coordinator Survey Research Center

NAME AND ADDRESS OF APPLICANT INSTITUTION

Oregon State University
Corvallis, Oregon 97331

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The objective of this project is to provide estimates of the proportion of people in Oregon, Washington and Idaho who participate in water related recreational activities. The number of activity days for each of four types of activity are also to be estimated. Estimates of quantified precision are needed for each of the 119 counties in the three states. These estimates are to be used in a regional recreation benefits model in which recreation use and water quality are related.

Approximately 40 counties will be sampled as observation units to be used in a prediction model. Such county characteristics as median household income, average age, population density and water recreation availability will be used to help predict activity. Within each sampled county, a survey of households will be conducted. A total sample of 3,000 households is planned. This sample will be allocated among the counties to optimally enhance precision.

It is anticipated that the project will be underway by September 15, 1979 and that a report will be submitted to the Environmental Protection Agency by March 15, 1980.

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*PROJECT: 005680-CARCINOGENIC POTENTIAL OF ARSENIC COMPOUNDS IN DRINKING WATER

                 TASK =DC27 -5A0016 **EPA=R807235-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 03/80 - 03/83 :   FY80
  EPA  OFFICER.: RJ BULL                EPA/HERL - CINC                FTS 8-684-7213
  INVESTIGATOR.: JU LAKSO               UNIV OF THE PACIFIC            STOCKTON                 CA 95207
                 DY SHIRACHI            UNIV OF THE PACIFIC            STOCKTON                 CA 95207
  MILESTONES...: 03/81 -TESTING OF ONE AS SPECIES AS INITIATOR
                 06/81 -COMPLETION OF INITIATOR ASSAY FOR 2 AS SPECIES
                 08/81 -PROMOTION ASSAY ONE AS SPECIES COMPLETED
                 03/82 -COMPLETION OF INITIATION ACTIVITY OF ALL 4 AS SPECIES
                 06/82 -COMPLETION OF PROMOTION ASSAYS
                 12/82 -GENERATION OF RELEVANT DOSE-RESPONSE DATA
                 03/83 -DETERMINATION OF REGULATORY STANCE ON AS IN DRINKING WATER
  PROGRAM ID...: (PE-C27 )           HEALTH EFFECTS - WATER QUALITY
  FINAL OUTPUT.: DETERMINATION OF REGULATORY STANCE ON AS IN
                 DRINKING WATER
  MANDATE......: 10-15      SAFE DRINKING WATER ACT
                 20-10      AA FOR WATER AND WASTE MANAGEMENT
                 20-13      DAA FOR DRINKING WATER
                 20-11      DAA FOR WATER PLANNING AND STANDARDS
  ORDIS CODES..: RECN-005680          SSIE-GMA  6683        EPA -R807235-01       ORD -RD10B30-5080
                 PE  -C27             LABT-OHR
  PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL         ENTERED - 06-28-80    UPDATED-  06-28-80
                 CATEGORY-RESEARCH    ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: UTILIZING SHORT-TERM IN VIVO METHODS THE ACTIVITY OF VARIOUS FORMS OF ARSENIC AS TUMOR
                  INITIATOR, PROMOTER AND CARCINOGEN WILL BE EVALUATED. THE EXPERIMENTS PLANNED WILL EVALUATE
                  INDIVIDUAL SPECIES OF AS TO DETERMINE WHICH IS THE CRITICAL FORM(S) TO BE REGULATED AND TO ARRIVE
                  AT A REASONABLE LEVEL FOR REGULATION. APPROACH: THE PRESENT STUDY WILL EMPLOY AN
                  INITIATION/PROMOTION ASSAY WHICH UTILIZES PRENEOPLASTIC LESIONS IN THE LIVER AS THE FIRST TEST
                  SYSTEM. THIS SYSTEM HAS BEEN PREVIOUSLY USED WITH A VARIETY OF CHEMICAL CARCINOGENS BY
                  HERL-CINCINNATI WITH THE METHODOLOGY SUGGESTED. BECAUSE OF AS EFFECTS ON OTHER SYSTEMS HAS BEEN
                  DOCUMENTED IN THE HUMAN SOME LIMITED EXPLORATORY WORK IS TO BE TAKEN UP IN ALTERNATIVE SYSTEMS
                  INCLUDING THE MOUSE LUNG ADENOMA SYSTEM.
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86.1

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE 8072146-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Urban IMP: Design of a Model System and Design and Development of a Technical Assistance Center

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

William Olkowski/Helga Olkowski, Co-Directors, John Muir Institute Center for the Integration of Applied Sciences.

NAME AND ADDRESS OF APPLICANT INSTITUTION

John Muir Institute for Environmental Studies, Inc.
743 Wilson Street
Napa, California 94558

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The ultimate goal of the model system is to reduce exposure to hazards of pesticide use in households and the urban landscape while providing effective pest control. Objectives are to assist EPA in: developing a national urban IPM initiative; planning EPA's programs, budget, research information, education, training, demonstration, technology transfer, technical assistance and management systems; assembling expertise; identifying groups; devising a model for a comprehensive urban IPM strategy; identifying R&D needs potential legislative and administrative initiatives. Objectives of the technical assistance center are to: identify urban IPM systems, on-line IPM programs, and constituencies; develop media packages and evaluation tools; publish an IPM newsletter; evaluate information retrieval needs and existing site/pest/pesticide data bases; determine feasibility of an urban IPM retrieval and delivery system; and produce site-specific workshops.

The model system will be designed to respond to site-specific factors: pesticides used, use rates, levels of risk; populations at risk; and composition of user communities. It will identify roles of governments as potential administrators, users, and promoters of urban IPM and technology transfer mechanisms. Demonstration site selection criteria will be developed, considering pesticides used, affected populations, cost of damage and treatments, amenability to alternative treatments, community's receptiveness to IPM, and potential for greatest cost-effectiveness. The center will be designed for the transfer of urban IPM information to urban pest managers, the reduction of unnecessary use of pesticides, redirection of resources to the use of alternatives, and increase in the benefits of pesticides used. It will answer information requests, design educational materials for demonstrations and conduct on-site workshops.

86.2

U.S. ENVIRONMENTAL PROTECTION AGENCY

Form Approved
OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. *(Do not use this space)*
SSIE

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

EPA
CR807250-01

TITLE OF PROJECT
Evaluation of Composting as a Means for Pesticide Disposal (Hazardous Waste Treatment)

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. Donald E. Mullins, Associate Professor of Entomology

NAME AND ADDRESS OF APPLICANT INSTITUTION
Virginia Polytechnic Institute and State University
Department of Entomology
Blackburg, Virginia 24061

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Biological degradation of toxic materials is not a new concept. It is well known that under appropriate conditions most organic materials will be metabolized by living systems. However, the relative rates and extent of pesticide and other hazardous chemical is not well understood. At VPI a research program has been initiated to determine rates and the extent of hazardous chemicals destruction under composting conditions. For example, the rate of disappearance of selected compounds ranged between 10-90% within a time interval of 8 weeks.

86.3

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*
SSIE 807267-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

ALTERATION OF TRANSPLACENTAL CARCINOGENESIS BY ENVIRONMENTAL CONTAMINANTS

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Loren D. Koller, 531-38-4360, Associate Professor and Assistant Dean, Veterinary Medicine, University of Idaho

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of Idaho
Moscow, Idaho 83843

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The proposed study will determine the effects of lead, cadmium, hexachlorobenzene (HCB), and pentachlorophenol (PCP) on the incidence, latency and distribution of tumors induced transplacentally by ethylurea and nitrite. The inclusion of metal-exposed control groups will also allow for the assessment of the direct carcinogenic effects of lead and cadmium. Female rats will be exposed to lead or cadmium in the drinking water from weaning until the time they deliver pups. On the 17-19th days of gestation, the mothers will be given ethylurea and nitrite by stomach tube, once per day. Treatment of the offspring will vary, encompassing prenatal, postnatal and pre plus postnatal exposure to the metals. Complete necropsy and histopathology will be conducted on all animals upon their natural death (or after two years) to determine alterations in tumor incidence, latency or distribution induced by lead, cadmium, HCB or PCP exposure. The animals will be observed closely for a secondary disease, polycythemia, that developed in a somewhat similar investigation.

86·4

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE 807279-81

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Design Institute for Physical Property Data (DIPPR)

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

See attached sheet

NAME AND ADDRESS OF APPLICANT INSTITUTION

American Institute of Chemical Engineers
345 East 47 Street
New York, N. Y. 10017

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The purpose of the Design Institute for Physical Property Data is to satisfy needs for more accurate and complete thermodynamic and physical property data for process equipment design to meet more stringent requirements, such as energy conservation and environmental and safety regulations. This goal would be accomplished through:

1. Compilation and critical review of existing property data for a large number of important chemicals and their mixtures.
2. Development of new data where needed.
3. Dissemination of results for process design calculations.

Initial research projects include:

1. A Data Compilation project.
2. A Chemicals Data Book project.
3. An Electrolyte Phase Equilibria project to satisfy design needs for improved calculation methods for aqueous electrolyte systems.
4. An Acetic Acid-Water Pressure-Volume-Temperature and Vapor-Liquid-Equilibrium Measurement project to resolve uncertainties in existing data at elevated pressure.

(Continued on attached sheet)

86.5

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*
SSIE R807282-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

QUANTITATIVE DNA ADDUCT DOSIMETRY AND ITS APPLICATION TO RISK ASSESSMENT

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Principal Investigator:
Dezider Grunberger, Ph.D.

Co-Principal Investigator:
I. Bernard Weinstein, M.D.

Research Associates:
Alan M. Jeffrey, Ph.D.
Regina M. Santella, Ph.D.
Takeshi Kinoshita, Ph.D.

NAME AND ADDRESS OF APPLICANT INSTITUTION

Health Sciences Center
Columbia University College of Physicians & Surgeons
701 W. 168 Street, New York, N.Y. 10032

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

Short-term in vitro assays for screening environmental agents for mutagenic and/or carcinogenic potential are now routinely used and have helped in the identification of numerous active compounds. However, it is important to be able to estimate the relative risk associated with exposure to such compounds. Precise risk assessments require a well-developed dosimetry technology for the construction of valid dose response curves. The objective of this proposal is the development of an approach termed "DNA-dosimetry", which is based on quantitating DNA adducts formed in cells exposed to the test substance. The method will be developed with benzo[a]pyrene (BP) in four short-term mammalian cell culture systems: 1) a Chinese hamster ovary mutagenesis assay, 2) a hamster embryo transformation assay, 3) a human cell transformation assay, and 4) Salmonella/microsomes mutagenesis assay. In addition, the types of adducts formed in primary rat hepatocytes, used as metabolizer cells in several assay systems, will be investigated. The cultures will be incubated with [^{3}H] labeled BP at various concentrations and time intervals. Cellular DNA will be extracted, hydrolyzed and the types and abundance of these adducts present in the DNA determined. Parallel assays will be conducted for mutagenicity or cell transformation. From these data dose response curves will be constructed which relate the abundance of specific BP-DNA adducts to the number of mutations or cell transformants induced in the particular in vitro assay. This project will also demonstrate the general feasibility of the DNA-dosimetry concept.

86.6

U.S. ENVIRONMENTAL PROTECTION AGENCY **NOTICE OF RESEARCH PROJECT** *(Please read reverse before completing)*	*Form Approved* *OMB No. 158-R0081*
	PROJECT NO. *(Do not use this space)* SSIE K80 7301-C1
PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE	EPA

TITLE OF PROJECT

WORKSHOP ON MEASUREMENT AND INTERPRETATION OF ACTINIDE ACCUMULATION BY MAN

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

McDonald E. Wrenn, Ph.D., Prof. & Director, Radiobiology Division
Rodney L. Jones, Admin. Director, Radiobiology Division
Mary G. Rieben, Admin. Asst. to Director, Radiobiology Division

NAME AND ADDRESS OF APPLICANT INSTITUTION

Department of Pharmacology, Radiobiology Division
University of Utah, Salt Lake City Utah 84112

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The workshop will serve to give researchers studying metabolism and toxicity of nuclear fuel related alpha emitters (actinides, uranium, thorium, plutonium, americium, etc.) a chance to intercompare data, discuss problems in data interpretation or analysis (physical, mathematical or radiochemical), to integrate and interpret human exposure information making use of ecological and environmental transport studies and animal metabolic and toxicologic studies, and dosimetric and toxicologic modeling. The primary focus of this meeting is man, both general public and occupationally exposed groups. This work is relevant to assessment and standard setting for the nuclear electric fuel cycles both uranium and thorium based.

Proceedings will be published along with discussion sections.

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Form Approved
OMB No. 158-R0081

NOTICE OF RESEARCH PROJECT

PROJECT NO. *(Do not use this space)*
SSIE 807310-01
EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT
Fifth National Ground Water Quality Symposium

GIVE NAMES, DEPARTMENTS, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Jay H. Lehr
James D. Miller
Joseph D. Ritchey
Kathy Butcher

NAME AND ADDRESS OF APPLICANT INSTITUTION

National Water Well Association Research Facility
500 West Wilson Bridge Road
Worthington, Ohio 43085

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The first objective of this symposium is to acquaint the participant with the subject of ground water pollution, providing a background for later discussions of legislation and adjudication. This will be accomplished by seminars on the nature and extent of ground water pollution from hazardous wastes and laboratory analysis techniques. A session will also be presented on the legal implications of hazardous waste disposal and ground water geothermal energy development.

The symposium's second objective is to familiarize participants with relevant legislation and to assess the legal implications and the environmental consequences of this legislation.

The third objective of the symposium is to demonstrate the legal trends and complexities in dealing with ground water pollution. Complete judicial cases will be presented, analyzed, and evaluated. The symposium will culminate in a mock trial that will enlist audience participation and illustrate the implications of the legislation and the precedents previously examined.

The published transactions of the symposium will present a clear picture of the legal and institutional response to ground water pollution. The speakers and attendance will represent a broad spectrum of organizations and institutions that have a vital interest in the judiciary's role in ground water protection.

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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO.*(Do not use this space)*
SSIE R807318-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Quantitation of Direct- and Indirect-Acting Alkylating Agents in Drinking Water

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Stanley A. Kline, Ph.D.	Research Scientist	Environmental Medicine
Sipra Banerjee, Ph.D	Assistant Professor	Environmental Medicine
Susan M. Melchionne, B.S.	Assistant Res. Sci.	Environmental Medicine
B.L. Van Duuren, Sc.D.	Professor	Environmental Medicine

NAME AND ADDRESS OF APPLICANT INSTITUTION

New York University Medical Center
550 First Avenue
New York, New York 10016

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

A method will be developed whereby the amount of alkylating agents present in drinking water may be quantitated. The method will measure compounds which are themselves alkylating agents (direct-acting) as well as those which would require metabolic activation (indirect-acting). Alkylation will be determined by the amount of alkylated glutathione produced when a sample is incubated with ^{35}S-labelled glutathione in the presence or absence of a microsomal oxidase system. The procedure will be developed using a variety of known direct- and indirect-acting alkylating agents. Thereafter, samples of drinking water will be assayed using this procedure.

86-9

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

COOPERATIVE AGREEMENT

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE 807358-01

EPA

TITLE OF PROJECT Removal of contaminants from Drinking Water by the Reverse Osmosis Water Treatment method.

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Martin R. Huxstep - Principal Investigator
Vincent B. Pickett - Consulting Engineer
William D. Darby - Project Manager
Thomas J. Sorg - Project Officer (USEPA)

NAME AND ADDRESS OF APPLICANT INSTITUTION

Charlotte Harbor Water Association, Inc.
3059 Del Prade Parkway, Harbour Heights, Fla. 33950

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The primary objective of the grant request is to evaluate the effectiveness and efficiency of high pressure and low pressure spiral wound, hollow fibre and new generation polyamide amines reverse osmosis process membranes in the removal of the specific inorganic compounds listed in the USEPA Safe Drinking Water Regulations. The project will also provide information on the ability of the reverse osmosis method to remove organic precusors that encourage the formation of chloroform and other trihalomethanes. The data obtained will contribute to the determination of the cost effectiveness of the reverse osmosis method for small community compliance with the SWDR.

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*PROJECT: 006693-POLLUTION CONTROL CONCEPTS FOR OIL SHALE

                 TASK =BC2G -000979 **EPA=R80729401   ** (GRANT)
                 STARTING/ COMPLETION DATE : 12/79 - 01/81 :   FY80
 EPA  OFFICER.: ER BATES                 EPA/IERL - CINC                FTS 8-684-4417
 INVESTIGATOR.: A  JOVANOVICH            UNIV OF DENVER                 DENVER RES INST
 MILESTONES...: 00/00 -OIL SHALE POLLUTION CONTROL GUIDANCE DOCUMENT
 PROGRAM ID...: (PE-C2G )          FUEL PROCESSING, PREP AND ADV COMBUSTION - ENERGY
 FINAL OUTPUT.: OIL SHALE POLLUTION GUIDANCE
 MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
                10-05     RESOURCE CONSERVATION AND RECOVERY ACT
                10-13     SOLID WASTE DISPOSAL ACT
                20-11     DAA FOR WATER PLANNING AND STANDARDS
                20-14     DAA FOR SOLID WASTE
                20-30     AA FOR TOXIC SUBSTANCES
                20-R08    EPA REGION VIII
                30-99     OIL SHALE DEVELOPMENT
 ORDIS CODES..: RECN-006693          SSIE-GMA  6860       EPA -R80729401       ORD -RB10830-5080
                PE  -C2G             LABT-EET
 PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - 10-24-80   UPDATED-  10-24-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: PREPARE AN OIL SHALE POLLUTION CONTROL TECHNOLOGY GUIDANCE DOCUMENT USEFUL TO REGULATION
                 ISSUING OFFICES, PERMITING OFFICES AND THE OIL SHALE INDUSTRY. APPROACH: SIX OIL SHALE DEVELOPMENTS
                 HAVE BEEN SELECTED FOR DETAILED STUDY AND ENGINEERING ANALYSIS. AIR, LIQUID AND GAS STREAMS WILL BE
                 DESCRIBED ALONG WITH ASSESSMENTS OF APPLICABLE CONTROLS TO INCLUDE EFFICIENCY AND COST OF POLLUTION
                 CONTROLS.

*PROJECT: 007032-1980 NATIONAL CONFERENCE ON MANAGEMENT OF ABONDONED HAZARDOUS WASTE
                SITES
                 TASK =BC33 -000986 **EPA=R80737201   ** (GRANT)
                 STARTING/ COMPLETION DATE : 12/79 - 12/80 :   FY80
 EPA  OFFICER.: I  WILDER                EPA/IERL - CINC                FTS 8-340-6635
 INVESTIGATOR.: H  BERNARD               HAZARDOUS MAT CNTL RES         SILVER SPRING          MD 20910
 PROGRAM ID...: (PE-C33 )          INDUSTRIAL PROCESSES
 MANDATE......: 10-03     TOXIC SUBSTANCES CONTROL ACT
                20-30     AA FOR TOXIC SUBSTANCES
 CURR. RESULTS: ABSTRACTS FOR PAPERS HAVE BEEN RECEIVED AND REVIEWED. THE
                CONFERENCE WILL BE HELD FROM OCTOBER 15-17, 1980 AT THE
                SHOREHAM HOTEL, WASHINGTON D.C.
 ORDIS CODES..: RECN-007032          SSIE-GMA  7103       EPA -R80737201       ORD -RB10830-5080
                PE  -C33             LABT-EET
 PROJ STATUS..: PROJECT-ACTIVE       INFO-ORIGINAL        ENTERED - 11-20-80   UPDATED-  11-20-80
                CATEGORY-RESEARCH    ACCESS-PUBLIC
 ABSTRACT.....: OBJECTIVE: THE U.S. EPA IS CONVENING THE 1980 NATIONAL CONFERENCE ON MANAGEMENT OF UNCONTROLLED
                 HAZARDOUS WASTE SITES TO INFORM THOSE WHO ARE CONCERNED WITH THIS ENVIRONMENTAL AND HEALTH
                 EMERGENCY OF THE LATEST INFORMATION, TECHNOLOGY AND "NEEDS" NECESSARY TO IDENTIFY, ASSESS,
                 DETERMINE PRIORITIES FOR AND RESPONSE TO IMPROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTES.
                 APPROACH: SPEAKERS FROM GOVERNMENT INDUSTRY AND ACADEMIA WILL PRESENT PAPERS ON RELEVANT TOPICS.
                 THOSE TOPICS INCLUDE LEGISLATION, SITE CONTENTS SAMPLING AND INVESTIGATION, PERSONAL PROTECTION AND
                 SAFETY, IDENTIFYING UNKNOWN SITES, RISK ASSESSMENT, LONG TERM REMEDIAL TECHNIQUES, DISPOSAL/STORAGE
                 ALTERNATIVES.
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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0051

PROJECT NO. Do not use this space

SSIE EH73718-01

EPA

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT

Evaluation of a Short-term in vivo System for Risk Assessment of Environmental Chemicals

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Daniel Couri, Professor of Pharmacology
Department of Pharmacology
Ohio State University College of Medicine

NAME AND ADDRESS OF APPLICANT INSTITUTION

The Ohio State University Research Foundation
1314 Kinnear Road
Columbus, Ohio 43212

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress (200 words or less. Omit confidential data). In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The only generally accepted means of testing chemicals for carcinogenic risk to mammals are lifetime exposures to lower mammalian species or human epidemiological data. These methods are too time-consuming and expensive for routine testing of chemicals. Current short-term in vitro tests have only limited usefulness in assessing mammalian risk. Experiments are proposed here to evaluate a short-term in vivo system for assessing the carcinogenic risk to man imposed by environmental chemicals. This system is composed of three parts: 1) whole animal dose-monitoring which will involve measuring the binding of chemicals to hemoglobin; 2) target organ dose-monitoring which entails the measurement of DNA-binding and 3) carcinogenic response as measured by a modification of Farber's enzyme-altered island assay in liver. Dose-response relationships will be obtained for each of these three parameters and analyzed to see if the whole animal dose-monitor is predictive of the target organ binding and/or carcinogenic response. The whole animal dose-monitor (hemoglobin-binding) may then be used to predict risk to a human population that has been exposed to an environmental contaminant. This may also be supported by epidemiological studies following an exposure.

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*PROJECT: 006766-OHIO RIVER BASIN ENERGY STUDY - (ORBES) FINAL REPORT

                  TASK =VC2J -000008 **EPA=R807395-01  ** (GRANT)
                  STARTING/ COMPLETION DATE : 02/80 - 09/80 :   FY80
  EPA  OFFICER.: L  SMITH                EPA/OEET- DAA                  FTS 8-426-9434
  INVESTIGATOR.: JJ STUKEL               UNIV OF ILLINOIS               SCH OF ENG/CIV ENG DEPT
                 B  KENNAN               UNIV OF ILLINOIS                                           IL
  MILESTONES...: 04/80 -PRELIMINARY DRAFT
                 05/80 -COMMENTS RECEIVED
                 07/80 -FINAL REPORT COMPLETE
                 08/80 -OFFICIAL COMMENTS RECEIVED
                 09/80 -FINAL REPORT TO CONGRESS
  PROGRAM ID...: (PE-C2J )          ENVIRN ASSES INPACT OF CONV & ADV ENERGY SYSTEMS
  MANDATE......: 10-02     CLEAN AIR ACT
                 10-99     CONGRESSIONAL MANDATE
  CURR. RESULTS: THE BULK OF ORBES RESEARCH HAS BEEN COMPLETED UNDER
                 PRIOR CONTRACTS.  INTEGRATING FUNCTION PROPOSED FOR
                 THIS COOPERATIVE AGREEMENT WILL BEGIN IMMEDIATELY
                 AFTER THE AWARD OF THE AGREEMENT.
  ORDIS CODES..: RECN-006766         SSIE-GMA  6936       EPA -R807395-01      ORD -RV10B30-1080
                 PE  -C2J            LABT-EET
  PROJ STATUS..: PROJECT-ACTIVE      INFO-ORIGINAL        ENTERED - 10-24-80   UPDATED-  10-24-80
                 CATEGORY-RESEARCH   ACCESS-PUBLIC
  ABSTRACT.....: OBJECTIVE: THE OBJECTIVE OF THIS COOPERATIVE AGREEMENT IS TO ASSIMILATE RESEARCH RESULTS PRODUCED
                  UNDER A SERIES OF PRIOR RESEARCH GRANTS AND TO INTEGRATE THESE RESULTS INTO A SUMMARIZING FINAL
                  REPORT. APPROACH: THE PROJECT WILL INVOLVE MAJOR RESEARCHERS FROM PREVIOUS GRANTS, ADVISORY
                  COMMITTEE MEMBERS, AND A SPECIAL EPA WORK GROUP IN A SERIES OF DRAFT REVIEW, COMMENT AND REVISION
                  ITERATIONS UNTIL A SATISFACTORY INTEGRATED PRODUCT IS PRODUCED.
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*PROJECT: 006700-1980 GORDON RESEARCH CONFERENCE IN ENVIRONMENTAL SCIENCES - WATER

                 TASK =KC1V -000231 **EPA=R807414-01  ** (GRANT)
                 STARTING/ COMPLETION DATE : 04/80 - 09/80 :   FY80
EPA  OFFICER.: GL BAUGHMAN              EPA/ERL - ATHENS
INVESTIGATOR.: AM CRUICKSHANK           UNIV OF RHODE ISLAND              FTS 8-250-3145
MILESTONES...: 06/80 -HOLD CONFERENCE                                     GORDON RESEARCH CONFERENCE
               09/80 -FINAL REPORT NOT TO BE PUBLISHED
PROGRAM ID...: (PE-C1V )          TRANSPORT AND FATE  - TOXICS
MANDATE......: 30-99    ENVIRONMENTAL SCIENCES
ORDIS CODES..: RECN-006700        SSIE-GMA  6869      EPA -R807414-01     ORD -RK10B30-3080
               PE  -C1V           LABT-EPE
PROJ STATUS..: PROJECT-ACTIVE     INFO-UPDATED        ENTERED - UNKNOWN   UPDATED-  11-20-80
               CATEGORY-RESEARCH  ACCESS-PUBLIC                           PREVIOUS- 10-24-80
ABSTRACT.....: OBJECTIVE: THIS PROJECT IS TO SUPPORT THE 1980 GORDON RESEARCH CONFERENCE IN ENVIRONMENTAL SCIENCES:
                WATER, TO BE HELD AT NEW HAMPTON SCHOOL, NEW HAMPTON, NEW HAMPSHIRE, JUNE 15-19, 1980. THE THEME OF
               THIS CONFERENCE IS THE QUANTITATIVE BASIS FOR PREDICTING THE CONCENTRATIONS OF ORGANICS IN NATURAL
               WATERS WITH THE MAJOR TOPICS BEING: (1) TRANSFER OF CHEMICALS FROM WATER TO AIR AND SOIL; (2)
               BIOCONCENTRATION; (3) MATHEMATICAL MODELING OF CHEMICALS IN AQUATIC MEDIA; AND (4)
               BIOTRANSFORMATION OF ORGANIC CHEMICALS. APPROACH: THERE WILL BE APPROXIMATELY 15 PRESENTATIONS BY
               INVITED SPEAKERS IN THE FIVE DAY MEETINGS, WITH EXTENSIVE TIME FOR DISCUSSION. IN ADDITION TO THE
               INVITED PAPERS, POSTER SESSIONS WILL ALSO BE CONDUCTED. GORDON RESEARCH CONFERENCES HAVE LIMITED
               ATTENDANCE AND APPLICATIONS ARE EVALUATED ON THE BASIS OF THE PERSON'S RESEARCH INTERESTS AND
               ABILITY TO CONTRIBUTE TO THE CONFERENCE.
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U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTICE OF RESEARCH PROJECT

(Please read reverse before completing)

Form Approved
OMB No. 158-R0081

PROJECT NO. *(Do not use this space)*

SSIE

EPA 807456-01

PREPARED FOR THE SMITHSONIAN SCIENCE INFORMATION EXCHANGE

TITLE OF PROJECT Development of Quantitative Analytical Methods for Volatile, Base-Neutral, and Acid Organic Priority Pollutants in Mussel Tissue

GIVE NAMES, DEPARTMENT, AND OFFICIAL TITLES OF PRINCIPAL INVESTIGATORS OR PROJECT DIRECTORS AND ALL OTHER PROFESSIONAL PERSONNEL ENGAGED IN THE PROJECT.

Dr. John L. Laseter, Director
Dr. George C. Lawler, Program Manager
Center for Bio-Organic Studies
University of New Orleans
New Orleans, Louisiana 70122

NAME AND ADDRESS OF APPLICANT INSTITUTION

University of New Orleans
Lakefront Campus
New Orleans, Louisiana 70122

SUMMARY OF PROPOSED WORK – (1) Objectives, (2) Approach, (3) Current Plans and/or Progress *(200 words or less. Omit confidential data).* In the Smithsonian Science Information Exchange, summaries of work in progress are exchanged with government and private agencies supporting research and are forwarded to investigators who request such information. Your summary is to be used for these purposes.

The major objectives of this three year study are: (1) to develop analytical procedures for the quantification of EPA Consent Decree volatile, base-neutral, and acid organic priority pollutants in mussel tissue and (2) to intercalibrate with participating Mussel Watch laboratories analyzing these pollutants. In year one, analytical techniques required for the quantification of the base-neutral and acid organic priority pollutants in mussels will be developed and documented as to their accuracy, precision, and linearity. Initially, optimum quantitative gas chromatographic and mass spectrometric (GC/MS) conditions will be established. Mussels collected from polluted areas will then be screened for base-neutral and acid priority pollutants. Following the screening, the quantitative efficiences of various extraction, fractionation, and clean-up techniques will be evaluated. The most efficient of these will be combined with the previously established GC/MS conditions and the entire procedure documented. In year two, these methods will be used in an intercalibration exercise with participating Mussel Watch laboratories. Development of quantitative analytical procedures for volatile organic priority pollutants in mussels will also be begun in year two. Documentation of these procedures will be completed in year three, followed again by an intercalibration exercise with participating laboratories.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
800665-136	WA	RESEARCH	WASHINGTON, UNIV. OF
803929-021	SC	RESEARCH	SOUTH CAROLINA DEPT. OF HEALTH & ENVRN
804033-017	WA	RESEARCH	WASHINGTON STATE UNIV.
804168-020	OH	RESEARCH	CHILDREN'S HOSPITAL RES FDN
804179-034	WI	RESEARCH	WISCONSIN, UNIV. OF
804345-050	CA	RESEARCH	CALIFORNIA, UNIV. OF
804395-035	MO	RESEARCH	WASHINGTON UNIV.
804431-040	CA	RESEARCH	STANFORD UNIV.
804533-033	IA	RESEARCH	IOWA STATE UNIV.
804594-014	PA	RESEARCH	PENNSYLVANIA, UNIV. OF
804611-033	FL	RESEARCH	MIAMI, UNIV. OF
804647-028	LA	RESEARCH	NEW ORLEANS, UNIV. OF
804763-021	PA	RESEARCH	DREXEL UNIV.
804902-013	IN	RESEARCH	EVANSVILLE, CITY OF
804946-022	MA	RESEARCH	MARLBOROUGH, CITY OF
805097-011	CA	RESEARCH	CALIFORNIA, UNIV. OF
805110-024	LA	RESEARCH	TULANE UNIV. SCHOOL
805117-014	OH	RESEARCH	DAYTON, UNIV. OF
805123-010	SD	DEMONSTRATION	SIOUX FALL PARK & REC. DEPT.
805146-031	MI	RESEARCH	MICHIGAN, UNIV. OF
805256-013	CA	DEMONSTRATION	MARYSVILLE, CITY OF
805263-020	WA	RESEARCH	WASHINGTON, UNIV. OF
805264-012	WA	DEMONSTRATION	LONGVIEW, CITY OF
805325-022	IL	RESEARCH	DEPAUL UNIV.
805337-030	OH	RESEARCH	OHIO STATE UNIV. RES. FDN.
805367-030	MT	RESEARCH	MONTANA STATE UNIV.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805371-021	NH	RESEARCH	MANCHESTER WATER WORKS
805410-031	CA	RESEARCH	CALIFORNIA, UNIV. OF
805426-023	CA	RESEARCH	STANFORD UNIV.
805427-030	AZ	RESEARCH	ARIZONA, UNIV. OF
805428-020	MN	RESEARCH	MINNESOTA, STATE OF
805485-015	OH	RESEARCH	CINCINNATI, UNIV. OF
805456-030	AL	RESEARCH	ALABAMA A&M UNIV.
805472-021	TX	RESEARCH	NORTH TEXAS STATE UNIV.
805477-030	RI	RESEARCH	RHODE ISLAND, UNIV. OF
805532-031	CA	RESEARCH	CALIFORNIA, UNIV. OF
805610-030	MT	RESEARCH	MONTANA, UNIV. OF
805620-015	VA	RESEARCH	MITRE CORP.
805624-031	MI	RESEARCH	MICHIGAN STATE UNIV.
805659-030	PA	RESEARCH	PENNSYLVANIA STATE UNIV.
805706-030	NY	RESEARCH	AMERICAN NATIONAL STDRS INST
805716-022	OH	RESEARCH	CASE WESTERN RESERVE UNIV.
805726-030	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
805731-020	AZ	RESEARCH	ARIZONA, UNIV. OF
805788-023	CA	RESEARCH	JOHN MUIR INST. FOR ENVRN. STUDIES
805790-020	VA	RESEARCH	VIRGINIA, UNIV. OF
805795-014	MA	DEMONSTRATION	BOSTON, CITY OF
805807-020	MI	RESEARCH	MICHIGAN TECHNOLOGICAL UNIV.
805863-021	OH	RESEARCH	NATIONAL WATER WELL ASSOC.
805868-012	NY	RESEARCH	AMERICAN SOCIETY OF CIVIL ENGRS.
805872-010	LA	RESEARCH	LOUISIANA STATE UNIV. & A&M COLLEGE
805900-011	CA	RESEARCH	MCFARLAND MUTUAL WATER CO.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
805901-020	NJ	RESEARCH	NEW JERSEY, UNIV. OF (RUTGERS)
805913-013	NY	RESEARCH	NEW YORK HEALTH RES., INC.
805918-021	MO	RESEARCH	WASHINGTON UNIV.
805933-012	TX	RESEARCH	BAYLOR COLLEGE OF MEDICINE
805934-020	NY	RESEARCH	NEW YORK STATE DEPT OF ENVRTL CONS
805993-020	MA	RESEARCH	MASSACHUSETTS, UNIV. OF
805994-020	MI	RESEARCH	MICHIGAN, UNIV. OF
806005-021	MO	RESEARCH	WASHINGTON UNIV.
806016-020	CO	RESEARCH	COLORADO STATE UNIV.,
806047-014	MT	RESEARCH	HELENA, CITY OF
806056-020	DC	RESEARCH	AMERICAN PETROLEUM INST
806061-015	CA	RESEARCH	STANFORD UNIV.
806062-022	IL	RESEARCH	IIT RESEARCH INST.
806070-020	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
806072-024	RI	RESEARCH	RHODE ISLAND, UNIV. OF
806107-011	CA	RESEARCH	CALIFORNIA, UNIV. OF
806126-011	NY	RESEARCH	NEW YORK STATE DEPT. OF HEALTH
806173-011	OH	RESEARCH	CHRIST HOSPITAL INST. OF MEDICAL RES.
806194-012	TX	RESEARCH	TEXAS, UNIV. OF
806209-015	MA	RESEARCH	CLARK UNIVERSITY
806213-022	AL	RESEARCH	AUBURN UNIV.
806214-014	MI	RESEARCH	MICHIGAN STATE UNIV.
806225-012	OR	RESEARCH	OREGON STATE UNIV.
806229-020	VA	RESEARCH	HAMPTON INSTITUTE
806238-020	TX	RESEARCH	TEXAS, UNIV. OF
806262-012	CA	RESEARCH	CALIFORNIA DEPT. OF WATER RES.

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806263-020	MD	RESEARCH	MARYLAND, UNIV. OF
806275-020	MI	RESEARCH	MICHIGAN, UNIV. OF
806287-021	OR	RESEARCH	OREGON STATE UNIV.
806299-020	NY	RESEARCH	RENSSELAER POLYTECHNIC INST.
806327-020	IL	RESEARCH	IIT RESEARCH INST.
806329-020	ME	RESEARCH	NASSON COLLEGE
806338-012	TX	RESEARCH	AUSTIN, CITY OF
806355-012	NY	RESEARCH	GLEN COVE, CITY OF (NEW YORK)
806393-020	NC	RESEARCH	DUKE UNIV.
806404-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806412-020	MA	RESEARCH	MASSACHUSETTS, UNIV. OF
806413-020	NY	RESEARCH	SYRACUSE UNIVERSITY RES CORP
806414-011	CA	RESEARCH	CALIFORNIA DEPT OF HEALTH SERVICES
806416-011	FC	RESEARCH	JERUSALEM, HEBREW UNIV OF
806425-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806430-020	GA	RESEARCH	GEORGIA, UNIV. OF
806435-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806447-020	CA	RESEARCH	CALIFORNIA, UNIV. OF (REGENTS)
806448-012	KY	RESEARCH	KENTON CNTY.
806449-011	OH	RESEARCH	CINCINNATI, UNIV. OF
806459-012	CA	RESEARCH	CALIFORNIA, UNIV. OF
806459-020	CA	RESEARCH	CALIFORNIA, UNIV. OF
806479-020	OH	RESEARCH	OHIO STATE UNIV. (RES FDN)
806481-020	VA	RESEARCH	VIRGINIA, MEDICAL COLLEGE OF
806491-013	CO	RESEARCH	COLORADO STATE UNIV.
806517-011	CO	RESEARCH	COLORADO, UNIV. OF

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806525-011	WV	RESEARCH	WEST VIRGINIA UNIV.
806527-020	UT	RESEARCH	UTAH STATE UNIV.
806546-020	VT	RESEARCH	VERMONT, UNIV. OF
806565-020	MI	RESEARCH	MICHIGAN, UNIV. OF
806593-011	NY	RESEARCH	NEW YORK UNIV. MEDICAL CTR.
806595-013	CO	RESEARCH	COLORADO, RES INST OF (DRAKE)
806598-012	IN	RESEARCH	NOTRE DAME, UNIV. OF
806600-011	MI	RESEARCH	MICHIGAN, UNIV. OF
806606-012	MO	RESEARCH	WASHINGTON UNIV.
806622-012	MA	RESEARCH	MASSACHUSETTS INST. OF TECH.
806631-011	CA	RESEARCH	STANFORD UNIV.
806658-011	CO	RESEARCH	COLORADO STATE UNIV.
806679-010	NC	RESEARCH	NORTH CAROLINA, UNIV. OF
806690-011	IN	RESEARCH	NOTRE DAME, UNIV. OF
806702-011	NY	RESEARCH	AMERICAN SOCIETY OF CIVIL ENGRS.
806704-012	CO	RESEARCH	DENVER URBAN DRAINAGE X FLOOD
806715-012	FL	RESEARCH	CENTRAL FLORIDA, UNIV. OF
806730-010	IL	RESEARCH	IIT RESEARCH INST.
806769-011	SD	RESEARCH	SOUTH DAKOTA SCHOOL OF MINES & TECH
806785-012	WI	RESEARCH	MARQUETTE UNIV.
806789-010	PA	RESEARCH	PENNSYLVANIA MEDICAL COLLEGE
806792-010	FL	RESEARCH	MIAMI, UNIV. OF
806801-011	MN	RESEARCH	MINNESOTA, UNIV. OF
806821-011	CO	DEMONSTRATION	DENVER BD. OF WATER COMMISSIONERS
806825-011	TX	RESEARCH	TEXAS A&M RES. FDN.
806828-012	NY	RESEARCH	MANHATTAN COLLEGE

GRANT NUMBER	STATE	PROGRAM	APPLICANT
806829-011	NJ	RESEARCH	RUTGERS UNIV.
806842-010	WA	RESEARCH	WASHINGTON, UNIV. OF
806843-010	OK	RESEARCH	OKLAHOMA STATE UNIV.
806854-012	NJ	DEMONSTRATION	NEW JERSEY DEPT OF ENV PROTECTION
806864-021	WI	RESEARCH	WISCONSIN, UNIV. OF
806872-030	OH	RESEARCH	CINCINNATI, UNIV. OF
806874-012	MA	RESEARCH	ARTHUR D. LITTLE, INC.
806878-014	WI	RESEARCH	WISCONSIN, UNIV. OF
806925-012	LA	DEMONSTRATION	JEFFERSON PARISH
806929-013	IL	RESEARCH	IIT RESEARCH INSTITUTE
806939-010	TX	RESEARCH	SOUTHWEST RESEARCH INSTITUTE
806941-011	MA	DEMONSTRATION	MASSACHUSETTS PORT AUTHORITY
806998-010	NY	RESEARCH	NEW YORK STATE ENERGY R&D AUTHORITY
807001-010	AR	RESEARCH	ARIZONA, UNIV. OF
807009-011	IL	RESEARCH	ILLINOIS, UNIV. OF
807015-010	CT	DEMONSTRATION	NORTHWESTERN CONNECTICUT REG PLNG AG
807022-010	MI	RESEARCH	EAST CENTRAL MICHIGAN PLNG & DEVEL
807030-010	PR	DEMONSTRATION	PUERTO RICO ENVIRONMENTAL QUALITY BD
807034-010	NY	RESEARCH	CLARKSON COLLEGE OF TECH
807051-011	FL	RESEARCH	MIAMI, UNIV. OF (SCHOOL OF MED)
807052-010	NC	DEMONSTRATION	NORTH CAROLINA, STATE OF
807058-010	FC	RESEARCH	AUCKLAND, UNIV. OF
807083-011	IL	RESEARCH	CHEMICAL COATERS ASSOC.
807085-010	CT	RESEARCH	PIERCE, J. B. FDN OF CONN
807104-010	NY	RESEARCH	CORNELL UNIVERSITY
807155-010	NY	RESEARCH	CLARKSON COLLEGE OF TECH

GRANT NUMBER	STATE	PROGRAM	APPLICANT
807158-010	SC	RESEARCH	SOUTH CAROLINA, UNIV. OF
807172-010	NY	RESEARCH	RENSSELAER POLY INST
807181-010	MA	RESEARCH	WOODS HOLE OCEANOGRAPHIC INST.
807187-010	OR	RESEARCH	OREGON STATE UNIV.
807202-011	CO	RESEARCH	DENVER, UNIV. OF (COLORADO SEM)
807225-010	IA	DEMONSTRATION	IOWA, STATE OF
807226-010	OR	RESEARCH	OREGON STATE UNIV.
807233-010	MI	RESEARCH	MICHIGAN, UNIV. OF
807235-010	CA	RESEARCH	PACIFIC, UNIV. OF THE
807246-010	CA	RESEARCH	JOHN MUIR INST FOR ENVRMTL STUD INC
807250-010	VA	RESEARCH	VIRGINIA POLYTECHNIC INST
807267-010	ID	RESEARCH	IDAHO, UNIV. OF (VETERINARY)
807279-010	NY	RESEARCH	AMERICAN INST OF CHEM ENGRNRS
807289-010	IL	RESEARCH	ILLINOIS, UNIV. OF (MEDICAL CTR)
807293-010	IL	RESEARCH	ILLINOIS, UNIV. OF
807294-010	CO	RESEARCH	DENVER, UNIV. OF
807299-010	CA	RESEARCH	SAN DIEGO REGION WATER RECLAMATION
807301-010	UT	RESEARCH	UTAH, UNIV. OF
807308-010	CA	RESEARCH	CALIFORNIA, UNIV. OF
807309-010	OH	RESEARCH	WRIGHT STATE UNIV.
807310-010	OH	RESEARCH	NATIONAL WATER WELL ASSOCIATION
807317-010	NY	RESEARCH	NEW YORK UNIV. (MED CTR)
807318-010	NY	RESEARCH	NEW YORK UNIV. (MED CTR)
[redacted]	DC	RESEARCH	NATIONAL CLEAN AIR COALITION
[redacted]-010	NC	RESEARCH	AMERICAN FISHERIES SOCIETY
[redacted]-010	FL	RESEARCH	CHARLOTTE HARBOR WATER ASSOC INC

GRANT NUMBER	STATE	PROGRAM	APPLICANT
807372-010	MD	RESEARCH	HAZARDOUS MATERIALS CONTROL RES INST
807376-010	OH	RESEARCH	OHIO STATE UNIV. RES. FDN.
807394-010	OH	RESEARCH	MIAMI UNIV.
807395-010	IL	RESEARCH	ILLINOIS, UNIV. OF
807399-010	CA	RESEARCH	CALIFORNIA, UNIV OF
807407-010	NC	RESEARCH	DUKE UNIVERSITY
807411-010	FL	RESEARCH	WEST FLORIDA, UNIV. OF
807412-010	IL	RESEARCH	DEPAUL UNIVERSITY
807414-010	RI	RESEARCH	GORDON RES CONFERENCE
807416-010	DC	DEMONSTRATION	NATIONAL RET TEACHERS ASSOC
807420-010	DC	RESEARCH	GEORGE WASHINGTON, UNIV., THE
807456-010	LA	RESEARCH	NEW ORLEANS, UNIV. OF
807457-010	OR	RESEARCH	OREGON STATE UNIV.
807473-010	NJ	RESEARCH	NEW JERSEY MED SCHOOL
807513-010	CO	RESEARCH	COLORADO STATE UNIV.
807522-010	NC	DEMONSTRATION	NORTH CAROLINA, UNIV. OF
807523-010	MD	DEMONSTRATION	JOHNS HOPKINS SCHOOL OF HYGIENE
807524-010	OH	DEMONSTRATION	OHIO STATE UNIV.
807525-010	WA	DEMONSTRATION	WASHINGTON, UNIV. OF
807555-010	MI	RESEARCH	MICHIGAN STATE UNIV.

A L A B A M A

** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
ALABAMA A&M UNIV. NORMAL	EFFECT OF LIMING, PHOSPHATE AND ORGANIC MATTER ON HEAVY METAL AVAILABILITY TO PLANTS GROWN IN SLUDGE	SHUFORD, J.	80545603	CONT	79/12/19	$52,016
AUBURN UNIV. AUBURN	METABOLISM OF POLYAROMATIC HYDROCARBONS BY OXIDASES OF MARINE ORGANISMS	HOBBS, E. H.	80621302	INCR	80/02/19	$30,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
A R I Z O N A						
** RESEARCH **						
ARIZONA, UNIV. OF TUCSON	ANALYSIS AND CHARACTERIZATION OF ORGANIC CARBON COMPOUNDS IN ATMOSPHERIC PARTICULATE MATTER	FREISER, H.	80542703	CONT	80/01/21	$45,000
ARIZONA, UNIV. OF TUCSON	APPLICATION OF THE LAPIDUS - AMUNDSON SOLUTE MOVEMENT MODEL TO PREDICITING POLLUTANTS IN SOIL; DEVEL	FULLER, W.	80573102	CONT	79/12/19	$85,000
** TRAINING **						
LEAGUE OF WOMEN VOTERS TUCSON	WATER CONSERVATION EDUCATION IN TUCSON PUBLIC SCHOOLS. LABORATORY AND DISCUSSIONS ON WATER CONSERVA	SHRIGLEY, N.	90106701	NEW	79/12/05	$8,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	ARIZONA					
** RESEARCH **						
ARIZONA, UNIV. OF TUCSON	PROPOSAL TO INVESTIGATE THE EFFECTS OF PROLONGED EXPOSURE OF ASBESTOS TO WATER	SESHAN, K.	80700101	NEW	80/03/26	$34,390

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	C A L I F O R N I A					
** RESEARCH **						
CALIFORNIA, UNIV OF RIVERSIDE	SOUTHWEST REGIONAL PROJECT FOR CROP-LOSS ASSESSMENT DUE TO PHOTOCHEMICAL OXIDANTS AND SULFUR DIOXIDE	TAYLOR, C.	80739901	NEW	80/02/20	$100,000
CALIFORNIA DEPT OF HEALTH SERVICES SACRAMENTO	VALIDATION OF SAMPLERS FOR INHALED PARTICULATE MATTER	WESOLOWSKI, J.	80641401	INCR	80/01/02	$36,075
CALIFORNIA DEPT. OF WATER RES. SACRAMENTO	WATER CONSERVATION AND THE DROUGHT	KOYASAKA, J.	80626201	INCR	80/02/19	$7,000
CALIFORNIA, UNIV. OF RIVERSIDE	CHEMISTRY AND MODE OF ACTION OF INSECTICIDES	FUKUTO, R.	80434505	CONT	80/02/19	$126,347
CALIFORNIA, UNIV. OF DAVIS	ANALYSIS OF BIOLOGICAL WASTEWATER TREATMENT PLANT PERFORMANCE	SCHROEDER, E. D.	80509701	INCR	80/01/22	$22,500
CALIFORNIA, UNIV. OF RIVERSIDE	IMPACT OF OXIDANT AIR POLLUTANTS ON A WESTERN CONIFEROUS FOREST ECOSYSTEM	TAYLOR, O.	80541003	INCR	79/12/18	$144,683
CALIFORNIA, UNIV. OF IRVINE	CHEMICAL REACTIONS OF ATMOSPHERIC HALOGENATED SPECIES	MOLINA, M.	80553203	INCR	80/01/28	$32,226
CALIFORNIA, UNIV. OF BERKELEY	FACTORS AFFECTING ACTIVATED SLUDGE BULKING	JENKINS, D.	80610701	INCR	79/12/05	$60,000
CALIFORNIA, UNIV. OF LOS ANGELES	ORIGIN AND BEHAVIOR OF POLLUTION AEROSOLS	FRIEDLANDER, S.	80640402	CONT	80/01/21	$60,000
CALIFORNIA, UNIV. OF BERKELEY	SYMPOSIUM ON MODELING OF POLLUTANT TRANSPORT IN RECEIVING WATERS (UCB-ENG-5009)	FISCHER, H.	80642502	CONT	80/03/31	$19,678

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
C A L I F O R N I A						
** RESEARCH **						
CALIFORNIA, UNIV. OF DAVIS	RAPID ASSAYS OF PLANT RESPONSE TO HERBICIDE TREATMENT	RAPPAPORT, L.	80643502	CONT	80/03/06	$20,078
CALIFORNIA, UNIV. OF DAVIS	NATURAL & ANTHROPOGENIC CONTRIBUTIONS TO FINE PARTICULATE MATTER IN WESTERN ENERGY RESOURCE	CAHILL, T.	80645901	INCR	79/12/26	$15,107
CALIFORNIA, UNIV. OF DAVIS	NATURAL AND ANTHROPOGENIC CONTRIBUTION TO FINE PARTICULATE MATTER IN THE WESTERN ENERGY RESOURCE DEV	CAHILL, T.	80645902	CONT	80/01/21	$229,779
CALIFORNIA, UNIV. OF SANTA BARBARA	THE DISPERSION AND FATE OF CONTAMINANTS IN A STRATIFIED LAKE	LICK, W.	80730801	NEW	80/01/21	$121,715
CALIFORNIA, UNIV. OF (REGENTS) RIVERSIDE	IMMUNOCHEMICAL ANALYSIS OF PESTICIDES AND SURFACTANTS	HAMMOCK, B.	80644702	CONT	80/03/26	$77,930
JOHN MUIR INST FOR ENVRMTL STUD INC NAPA	URBAN IPM: DESIGN OF A MODEL SYSTEM AND DESIGN AND DEVELOPMENT OF A TECHNICAL ASSISTANCE CENTER	OLKOWSKI, W.	80724601	NEW	79/12/12	$194,351
JOHN MUIR INST. FOR ENVRN. STUDIES NAPA	REGIONAL VISIBILITY: THE COLORADO PLATEAU	WALTHER, E.	80578802	INCR	79/12/26	$43,726
MCFARLAND MUTUAL WATER CO. MCFARLAND	REMOVAL OF NITRATE FROM CONTAMINATED WATER SUPPLIES FOR PUBLIC USE	KARTINEN, E.	80590001	INCR	80/01/02	$60,956
PACIFIC, UNIV. OF THE STOCKTON	CARCINOGENIC POTENTIAL OF ARSENIC COMPOUNDS IN DRINKING WATER	LAKSO, J.	80723501	NEW	80/02/15	$95,700
SAN DIEGO REGION WATER RECLAMATION SANTEE	A PROPOSAL TO STUDY ARTIFICIAL WETLANDS AS A MEANS OF ADVANCED BIOLOGICAL WASTEWATER TREATMENT	ELKINS B.	80729901	NEW	80/02/15	$100,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	C A L I F O R N I A					
** RESEARCH **						
STANFORD UNIV. STANFORD	GROUNDWATER INJECTION OF RECLAIMED WATER IN PALO ALTO	MCCARTY, P.	80443104	CONT	79/12/26	$245,140
STANFORD UNIV. STANFORD	FEASIBILITY OF USING CHLORINE DIOXIDE IN THE DISINFECTION OF MUNICIPAL WASTEWATER EFFLUENTS	ROBERTS, P.	80542602	INCR	79/12/18	$10,060
STANFORD UNIV. STANFORD	INVESTIGATION OF FLUID BED COMBUSTION OF MUNICIPAL SOLID WASTE	EUSTIS, R.	80606101	INCR	80/02/19	$95,000
STANFORD UNIV. STANFORD	REMOVAL OF ORGANIC PRIORITY POLLUTANTS BY VOLATILIZATION DURING WASTEWATER TREATMENT	ROBERTS, PAUL	80663101	INCR	80/03/18	$87,970
** DEMONSTRATION **						
MARYSVILLE, CITY OF MARYSVILLE	ELLIS LAKE - HYDRILLA ERADICATION	ONDEREK, J. C.	80525601	INCR	79/12/19	$250,000
** TRAINING **						
CALIFORNIA, UNIV. OF BERKELEY	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION IX	CARROLL, M.	90100501	INCR	79/12/18	$60,000
GRAY PANTHERS OF W. CONTRA COSTA CNTY EL CERRITO	HAZARDOUS WASTES IN THE BAY AREA DISCOVERY, RECOVERY, AND RE-USE	CHRISTNER, F.	90106801	NEW	79/11/23	$3,100
SAN DIEGO ECOLOGY CENTRE SAN DIEGO	YOUTH GROUPS RECYCLING PROJECT-TO PROMOTE AND ASSIST CAMP FIRE, GIRL SCOUT, BOY SCOUT AND OTHER YOUT	FEATHERINGILL, M.	90106601	NEW	79/11/30	$3,900
SIERRA CLUB SAN FRANCISCO	A PROGRAM TO STRENGTHEN CONCERN FOR THE URBAN ENVIRONMENT	GOLDSTEIN, N.	90108101	NEW	79/11/27	$30,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	C A L I F O R N I A					
** TRAINING **						
WESTERN INST FOR OCCUP/ENVRTL SCI INC BERKELEY	CONFERENCE ON WORK AND HEALTH	POLAKOFF, P.	90110201	NEW	80/03/12	$5,000

C O L O R A D O

** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
COLORADO STATE UNIV. FORT COLLINS	THE DESIGN, FABRICATION AND TESTING OF AMBIENT AEROSOL SAMPLER INLETS	WEDDING, J.	80649101	INCR	80/03/19	$30,000
COLORADO STATE UNIV. FORT COLLINS	REFINEMENT, VERIFICATION AND APPLICATION OF A LONG-RANGE TRANSPORT MODEL OF SO2 AND SULFATE	REITER, ELMAR	80665801	INCR	80/02/19	$75,000
COLORADO STATE UNIV. FORT COLLINS	FIELD LEACHING STUDY OF RAW MINED OIL SHALE	MCWHORTER, D.	80751301	NEW	80/03/26	$67,646
COLORADO STATE UNIV., FORT COLLINS	METHODOLOGY DEVELOPMENT FOR SITTING POWER PLANTS	DOOD, J.	80601602	CONT	80/01/21	$349,978
COLORADO, RES INST OF (DRAKE) FORT COLLINS	DETERMINATION OF SAMPLING EFFECTIVENESS OF SELECTED DICHOTOMOUS AMBIENT AEROSOL	WEDDING, J.	80659501	INCR	80/01/28	$20,362
COLORADO, UNIV. OF BOULDER	CHEMISTRY OF RENOVATED WASTEWATER	CHAPPELL, W.	80651701	INCR	80/01/28	$50,350
DENVER URBAN DRAINAGE & FLOOD DENVER	PREPARE GUIDELINES FOR WET-WEATHER MONITORING	TUCKER, L.	80670401	INCR	80/01/28	$52,000
DENVER, UNIV. OF DENVER	COOPERATIVE AGREEMENT; 3 TASK (OIL SHALE)	JOVANOVICH, A.	80729401	NEW	80/01/14	$504,283
DENVER, UNIV. OF (COLORADO SEM) DENVER	WHO'S WHO IN THE FEDERAL GOVERNMENT'S R, D&D OIL SHALE PROGRAM	WESTCOTT, P.	80720201	INCR	79/12/26	$610

** DEMONSTRATION **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
DENVER BD. OF WATER COMMISSIONERS DENVER	POTABLE WASTE REUSE DEMONSTRATION PROJECT	MILLER, K.	80682101	INCR	80/01/31	$46,958

COLORADO

** TRAINING **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
COLORADO COALITION FOR FULL EMPLOY DENVER	COLORADO CONFERENCE ON RENEWABLE ENERGY RESOURCES	KAHN, ROGER	90108601	NEW	79/12/05	$5,000
COLORADO STATE UNIV. FORT COLLINS	CONTINUATION OF THE NATIONAL CENTER FOR VEHICLE EMISSIONS CONTROL AND SAFETY	HAYES, B.	90088502	INCR	80/02/15	$29,925
COLORADO, UNIV. OF BOULDER	NATIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION VIII	FOCH, JAMES	90100601	INCR	79/11/27	$60,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	C O N N E C T I C U T					
** RESEARCH **						
PIERCE, J. B. FDN OF CONN NEW HAVEN	THERMOREGULATION: LONG-TERM MICROWAVE EFFECTS	ADAIR, ELEANOR	80708501	NEW	79/11/26	$150,000
** DEMONSTRATION **						
NORTHWESTERN CONNECTICUT REG PLNG AG WARREN	LAKE WARAMAUG RESTORATION PROGRAM: IMPROVE LAKE WATER QUALITY THROUGH CONTROL OF NON-PROFIT SOURCES	HENRY, D.	80701501	NEW	79/12/17	$124,225
** TRAINING **						
HARTFORD, UNIV. OF WEST HARTFORD	REGINAL TECHNICAL ASSISTANCE CENTER	HEMOND, C.	90099001	INCR	80/01/21	$60,000
** FELLOWSHIPS **						
PEPLAN, S. HARTFORD	MANAGEMENT SCIENCE	HARTFORD GRADUATE CTR.	91119801	INCR	79/12/26	$120

D I S T R I C T   O F   C O L U M B I A

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
AMERICAN PETROLEUM INST WASHINGTON	INVESTIGATION OF THE EFFECTIVENESS OF SURFACE-ACTIVE AGENTS IN COMBATTING OIL SPILLS	GOULD, J. R.	80605602	CONT	80/01/31	$50,000
GEORGE WASHINGTON, UNIV., THE WASHINGTON	RESEARCH OPPORTUNITIES FOR SELECT EPA PERSONNEL	MANDEL, H. G.	80742001	NEW	80/03/05	$137,617
NATIONAL CLEAN AIR COALITION WASHINGTON	ACTION SEMINAR ON ACID PRECIPITATION	AGLE, E.	80732901	NEW	79/11/29	$10,000
** DEMONSTRATION **						
NATIONAL RET TEACHERS ASSOC WASHINGTON	SENIOR EMPLOYMENT PROGRAM FOR NOISE ABATEMENT - TO DEMONSTRATE THE EFFECTIVENESS OF OLDER AMERICANS	NORTHUP, G.	80741601	NEW	80/01/08	$147,500
** TRAINING **						
CITIZEN'S COMM FOR THE SEC ENVRNTL WASHINGTON	EARTH DAY 80 - THIS PROJECT IS DESIGNED TO PROMOTE PUBLIC UNDERSTANDING OF ENVIRONMENTAL PROGRAMS	MCCABE, MIKE	90109701	NEW	80/01/30	$40,000
CONSERVATION FDN. WASHINGTON	TRAINING CONFERENCES FOR THE OFFICE OF TOXIC SUBSTANCES	DAVIS, J. C.	90062903	INCR	79/12/26	$58,778
CONSERVATION FOUNDATION WASHINGTON	THE ENVIRONMENTAL DECADE CONFERENCE	RASTATTER, CLEM	90112001	NEW	80/03/07	$25,000
ENVIRONMENTAL ACTION FDN WASHINGTON	PUBLIC EDUCATION AND CITIZEN TRAINING FOR THE STATE IMPLEMENTATION OF RCRA	FLORENCE, LOIS	90093202	CONT	79/12/26	$62,000
ENVIRONMENTAL ACTION FDN WASHINGTON	OFFICE OF PUBLIC AWARENESS	CRAPSEY, ANA	90110801	NEW	80/02/28	$9,000

D I S T R I C T   O F   C O L U M B I A

** TRAINING **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
GEORGE WASHINGTON UNIV, THE WASHINGTON	SYMPOSIUM CONCERNING THE DEVELOPMENT, USE AND VALUE OF WATER QUALITY STANDARD & CRITERIA	BELL, BRUCE	90111901	NEW	80/02/20	$9,554
GOV'TL REFUSE COL & DISP ASSOC WASHINGTON	GRCDA ASSISTANCE PROGRAM	HICKMAN, L.	90110401	NEW	80/01/22	$45,000
INTERNATIONAL CITY MANAGEMENT ASSOC. WASHINGTON	COMPREHENSIVE SOLID WASTE TECHNICAL ASSISTANCE PROGRAM FOR LOCAL GOVERNMENT	HART, C.	90094401	INCR	80/01/31	$10,000
LEAGUE OF WOMEN VOTERS EDUC FUND WASHINGTON	PUBLIC EDUCATION ON RESOURCE CONSERVATION AND RECOVERY	BRERETON, B.	90093302	CONT	80/03/26	$99,631
NATIONAL ASSOC OF CONSVR DIST WASHINGTON	INFORMATION PROJECT ON HAZARDOUS WASTE MANAGEMENT	WILLIAMS, R.	90109601	NEW	79/12/27	$38,921
NATIONAL COALITION FOR DISEASE PREV WASHINGTON	NATIONAL COALITION FOR DISEASE PREVENTION AND ENVIRONMENTAL HEALTH; CLEARINGHOUSE	SHOREY, CLYDE	90108501	NEW	79/11/27	$10,000
NATIONAL RETIRED TEACHERS ASSOC WASHINGTON	SENIOR ENVIRONMENTAL EMPLOYMENT PROGRAM FOR ASBESTOS CONTROL TRAINING	NORTHUP, GLEN	90110701	NEW	80/03/06	$381,938
NATIONAL WILDLIFE FED WASHINGTON	HAZARDOUS WASTE FACILITIES SITING WORKSHOPS (WASTE ALERT)	KAMLET, KENNETH	90093102	CONT	80/01/21	$90,065
NATIONAL WILDLIFE FEDERATION WASHINGTON	PUBLIC PARTICIPATION IN TOXIC SUBSTANCES CONTROL	KAMLET, K.	90090501	INCR	80/03/12	$700
NATURAL RES DEFENSE COUNCIL INC WASHINGTON	PROJECT ON TOXIC POLLUTANT REGULATIONS	BANKS, JAMES	90110601	NEW	80/03/12	$145,566

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
D I S T R I C T O F C O L U M B I A						
** TRAINING **						
RURAL AMERICA WASHINGTON	NATIONAL PESTICIDE INFORMATION AND EDUCATION CENTER FOR AGRICULTURAL WORKERS SAFETY AND HEALTH	FELDMAN, JAY	90112201	NEW	80/02/20	$101,494
URBAN ENVIRONMENT CONF FDN INC WASHINGTON	MINORITY EDUCATION FOR ENVIRONMENTAL AND NATURAL RESOURCE PROFESSIONS	DURNING, JEAN	90109801	NEW	80/01/21	$30,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	F L O R I D A					
** RESEARCH **						
CENTRAL FLORIDA, UNIV. OF ORLANDO	URBAN STORMWATER & COMBINED SEWER OVERFLOW IMPACT ON RECEIVING WATER BODIES	YOUSEF, YOUSEF	80671501	INCR	79/12/26	$12,500
CHARLOTTE HARBOR WATER ASSOC INC HARBOUR HTS	REMOVAL OF CONTAMINANTS FROM DRINKING WATER BY THE REVERSE OSMOSIS WATER TREATMENT PROCESS	DARBY, W.	80735801	NEW	80/03/01	$100,000
MIAMI, UNIV. OF CORAL GABLES	MAN'S EXPOSURE TO HALOGENATED ORGANICS IN DRINKING WATER	ENOS, H.	80461103	INCR	80/02/19	$223,044
MIAMI, UNIV. OF MIAMI	ISOLATION AND STUDY OF CHLORO-ORGANICS RESULTING FROM CHLORINATION OF SEAWATER	CARPENTER, J.	80679201	NEW	80/03/26	$109,000
MIAMI, UNIV. OF (SCHOOL OF MED) CORAL GABLES	EPIDEMIOLOGIC STUDIES PROGRAM	DUNCAN, R.	80705101	INCR	80/03/05	$303,701
WEST FLORIDA, UNIV. OF PENSACOLA	EFFECTS ASSESSMENT OF SELECTED CHEMICALS ON ESTUARINE AND MARINE ORGANISMS	D'ASARO, C.	80741101	NEW	80/03/18	$97,963

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	GEORGIA					
** RESEARCH **						
GEORGIA, UNIV. OF ATHENS	A COMBINED ABSORPTION, FLUORESCENCE, FLUORESCENCE-EXCITATION, AND COHERENT ANTI-STOKES RAMAN DETECTI	CARREIRA, L.	80643002	CONT	80/01/28	$106,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	H A W A I I					
** TRAINING **						
CITIZENS AGAINST NOISE HONOLULU	HEARING LOSS EDUCATION PROGRAM; MATCHING FUNDS FOR AN OUTREACH EDUCATION PROGRAM AIMED AT GRADES 4-	OSWALD, C.	90107101	NEW	80/01/02	$2,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
I D A H O						
** RESEARCH **						
IDAHO, UNIV. OF (VETERINARY) MOSCOW	ALTERATION OF TRANSPLACENTAL CARCINOGENESIS BY ENVIRONMENTAL CONTAMINANTS	KOLLER, LOREN	80726701	NEW	80/03/17	$118,311

I L L I N O I S

** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CHEMICAL COATERS ASSOC. WHEATON	EVALUATION OF ENVIRONMENTAL AND ENERGY BENEFITS ACHIEVABLE BY COMPUTER PROCESS	HEUERTZ, M.	80708301	INCR	80/01/31	$225,000
DEPAUL UNIV. CHICAGO	INPUTS OF HAZARDOUS MATERIALS FROM THE ATMOSPHERE TO SAGINAW BAY	MURPHY, T.	80532502	INCR	79/12/26	$9,028
-PAUL UNIVERSITY CHICAGO	POLYCHLORINATED BIPHENYLS IN THE ATMOSPHERE AND IN LAKE MICHIGAN	MURPHY, T.	80741201	NEW	80/03/01	$82,901
IIT RESEARCH INST. CHICAGO	STUDY OF MICROBIAL AEROSOLS EMITTED FROM A WATER RECLAMATION PLANT	FANNIN, K.	80606202	INCR	80/02/19	$95.210
IIT RESEARCH INST. CHICAGO	ANIMAL HEALTH EFFECT STUDIES OF INHALED PARTICULATES	EHRLICH, RICHARD	80632702	CONT	79/12/06	$140,000
IIT RESEARCH INST. CHICAGO	DEVELOPMENT AND VALIDATION OF MODEL SYSTEMS FOR EVALUATING TOXIC COMPOUNDS	FENTERS, J.	80673001	NEW	79/11/27	$148,472
IIT RESEARCH INSTITUTE CHICAGO	RESPIRATORY CARCINOGENESIS OF DIESEL FUEL EMISSIONS AND RELATED SUBSTANCES	SHEFNER, ALAN	80692901	INCR	79/12/26	$440,000
ILLINOIS, UNIV. OF URBANA	DEVELOPMENT OF MONITORING METHODS TO DETERMINE THE PRESENCE OF MUTAGENIC COMPOUNDS IN CHICAGO SEAWAG	HOPKE, PHILIP	80700901	INCR	79/12/18	$12,995
ILLINOIS, UNIV. OF CHICAGO	PUBLIC HEALTH HAZARDS OF ATMOSPHERIC NITROGEN OXIDES AS IN VIVO PRECURSORS OF NITROSAMINES	IQBAL, Z. M.	80729301	NEW	80/03/17	$99,656
ILLINOIS, UNIV. OF URBANA	OHIO RIVER BASIN ENERGY STUDY, FINAL REPORT; IMPACT ASSESSMENT OF ENERGY CONVERSION FACILITIES	STUKEL, JAMES	80739501	NEW	80/02/25	$260,354

I L L I N O I S

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
** RESEARCH **						
ILLINOIS, UNIV. OF (MEDICAL CTR) CHICAGO	LEVEL OF ASBESTOS IN THE KIDNEY CORTEX OF CHRONICALLY GAVAGES RATS	KUSUM, PATEL-MANDLIK	80728901	NEW	80/03/05	$29,832
** TRAINING **						
AMERICAN PUBLIC WORKS ASSOC CHICAGO	INCREASED SOLID WASTE MANAGEMENT SERVICES TO STATE AND LOCAL AGENCIES	MONTGOMERY, D.	90110501	NEW	80/01/22	$100,000
ILLINOIS INST. OF TECH. CHICAGO	REGIONAL TECHNICAL ASSISTANCE CENTER, REGION #5	SCHECHTER, H.	90099101	INCR	79/12/05	$59,850

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	I N D I A N A					
** RESEARCH **						
EVANSVILLE, CITY OF EVANSVILLE	PREVENTION OF FORMATION AND REMOVAL OF HALOGENATED ORGANIC USING CHLORINE DIOXIDE AND GRANULAR CARON	MILLS, D. B.	80490201	INCR	79/12/18	$83,024
NOTRE DAME, UNIV. OF NOTRE DAME	FULL-SCALE STUDY OF SEQUENCING BATCH REACTORS	IRVINE, R.	80659801	INCR	79/11/23	$176,500
NOTRE DAME, UNIV. OF NOTRE DAME	ANALYSIS AND ASSESSMENT OF INCINERATED MUNICIPAL SLUDGE ASHES AND LEACHATES	THEIS, THOMAS	80669001	INCR	80/01/02	$41,138
** TRAINING **						
NATIONAL ENVRNTL TRNG ASSOC INC VALPARAISO	DEVELOPMENT OF A TWO-YEAR PLAN AND OF THE SECOND ANNUAL WORKSHOP PROGRAM	KINIAS, G.	90110301	NEW	80/03/13	$15,248
** FELLOWSHIPS **						
STAPINSKI, R. INDIANAPOLIS	PUBLIC & ENV. AFFAIRS	INDIANA UNIV.	91129201	INCR	80/01/11	$507

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
I O W A						
** RESEARCH **						
IOWA STATE UNIV. AMES	DEVELOPMENT OF SAFE METHODS FOR DISPOSAL OF EXCESS PESTICIDES USE BY AGRICULTURE & COMM APPLICATORS	HALL, C. V.	80453303	INCR	79/12/26	$3,000
** DEMONSTRATION **						
IOWA, STATE OF DES MOINES	LAKE MANAWA RENOVATION	ALBRIGHT, T.	80722501	NEW	79/11/02	$2,061,000
** TRAINING **						
IOWA, UNIV. OF IOWA CITY	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER	ANDERSON, C.	90098501	INCR	79/11/27	$63,739

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
KENTUCKY						
** RESEARCH **						
KENTON CNTY. FT. MITCHELL	STANDARDIZED WATER UTILITY FINANCIAL REPORTING SYSTEM	FENDER, V.	80644801	INCR	79/12/18	$30,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	L O U I S I A N A					
** RESEARCH **						
NEW ORLEANS, UNIV. OF NEW ORLEANS	FORMATION OF CARCINOGENIC PHOTOOXIDATION PROD. FR. POLYAROMATIC	LASETER, J.	80464702	INCR	79/12/26	$22,459
NEW ORLEANS, UNIV. OF NEW ORLEANS	DEVELOPMENT OF QUANTITATIVE ANALYTICAL METHODS FOR VOLATILE, BASE-NEUTRAL, AND ACID ORGANIC PRIORITY	LASETER, JOHN	80745601	NEW	80/03/26	$99,101
TULANE UNIV. SCHOOL NEW ORLEANS	WATER SOURCES & CHARACTERISTICS & MALIGNANCY RATES OF SELECTED SITE IN SELECTED PARISHES OF LOUISIAN	GOTTLIEB, M.	80511002	INCR	80/03/10	$60,000
** DEMONSTRATION **						
JEFFERSON PARISH JEFFERSON	REMOVAL OF ORGANIC SUBSTANCES FROM DRINKING WATER	BRODTMAN, N.	80692501	INCR	80/03/26	$1,253,933

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MAINE					
** RESEARCH **						
NASSON COLLEGE SPRINGVALE	BACTERIAL SURVIVAL IN POTABLE WATER WITH LOW TURBIDITY	CIULLO, R.	80632902	CONT	79/11/27	$61,611

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
M A R Y L A N D						
** RESEARCH **						
HAZARDOUS MATERIALS CONTROL RES INST SILVER SPRING	CONFERENCE ON MANAGEMENT OF UNCONTROLLED AND ABANDONED CHEMICAL STORAGE AND DUMP SITES	BERNARD, H.	80737201	NEW	80/02/22	$39,911
MARYLAND, UNIV. OF COLLEGE PARK	INTEPRETATION OF THE RAPS ATMOSPHERIC ELEMENTAL CONCENTRATION DATA	GORDON, G.	80626302	CONT	80/02/19	$60,000
** DEMONSTRATION **						
JOHNS HOPKINS SCHOOL OF HYGIENE BALTIMORE	SCIENTIFIC REVIEW PANEL FOR HEALTH RESEARCH TO ADVISE EPA ON THE SCIENTIFIC QUALITY OF RESEARCH	GREEN, G.	80752301	NEW	80/02/11	$71,350
** TRAINING **						
CITIZENS PROG FOR THE CHESAPEAKE BAY BALTIMORE	PUBLIC PARTICIPATION - CHESAPEAKE BAY PROGRAM	FLANIGAN, F.	90109901	NEW	80/01/21	$264,988
MARYLAND, UNIV. OF COLLEGE PARK	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION III	CUNNIFF, P.	90098701	INCR	79/11/23	$60,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M A S S A C H U S E T T S					
** RESEARCH **						
ARTHUR D. LITTLE. INC. CAMBRIDGE	SUPERCRITICAL FLUID REGENERATION OF ACTIVATED CARBON FOR TREATING PESTICIDE MANUFACTURING WASTEWATER	DEFILIPPI, R.	80687401	INCR	80/03/26	$90,000
CLARK UNIVERSITY WORCESTER	INTERACTIONS AMONG RECENT LEGISLATION AFFECTING THE PUBLIC WATER SUPPLY	SCHWARZ, H.	80620901	INCR	80/01/31	$69,357
MASSACHUSETTS INST. OF TECH. CAMBRIDGE	RESEARCH ANALYSING TRANSPORTATION AND RELATED STRATEGIES TO ACHIEVE AIR QUALITY OBJECTIVES	MANHEIM, M.	80662201	INCR	80/02/19	$49,792
MASSACHUSETTS, UNIV. OF AMHERST	EFFECT OF CHLORITES, NITRITES, CHLORAMINES, COPPER (AND COMBINATIONS) ON NEONATE AND PREGNANT MICE	MOORE, G.	80599302	CONT	79/11/23	$76,178
MASSACHUSETTS, UNIV. OF AMHERST	STRESS-ETHYLENE PRODUCTION AS A MEASURE OF AIR POLLUTANT PHYTOXICITY	CRAKER, L.	80641202	CONT	80/02/18	$38,498
WOODS HOLE OCEANOGRAPHIC INST. WOODS HOLE	MUSSELS AND OYSTERS AS BIOLOGICAL INDICATORS OF RADIONUCLIDE POLLUTION	BOWEN, VAUGHAN	80718101	NEW	80/02/15	$50,000
** DEMONSTRATION **						
BOSTON, CITY OF BOSTON	DEMONSTRATION OF SWIRL & HELICAL BEND REGULATORS AS STORM SEWER CONTROL DEVICES	SNEDEKER, J.	80579501	INCR	80/01/22	$20,000
MASSACHUSETTS PORT AUTHORITY BOSTON	SOUNDPROOFING/WEATHERIZATION	HILLMAN,GRACIA	80694101	INCR	80/03/28	$35,000
** TRAINING **						
MASSACHUSETTS INST OF TECH CAMBRIDGE	CONSENSUAL APPROACHES TO THE ENFORCEMENT OF ENVIRONMENTAL STANDARDS	SUSSKIND, L.	90107801	NEW	80/02/19	$54,615

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
M A S S A C H U S E T T S						
** FELLOWSHIPS **						
FAERBER, MATTHEW BOSTON	HISTORY/PLY SCI	NEW ENGLAND SCHOOL OF	91138101	INCR	80/03/18	$2,111

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
M I C H I G A N						
** RESEARCH **						
EAST CENTRAL MICHIGAN PLNG & DEVEL SAGINAW	SAGINAW & PINE RIVERS IN-PLACE POLLUTANTS MITIGATION FEASIBILITY STUDY FOR PCBS AND PBBS.	SYGO, JIM	80702201	NEW	80/03/07	$275,000
MICHIGAN STATE UNIV. E. LANSING	ECOSYSTEM RESPONSES TO ALTERNATIVE PESTICIDES IN THE TERRESTRIAL ENVIRONMENT: A SYSTEMS APPROACH	GOODMAN, E.	80562403	INCR	80/03/12	$69,350
MICHIGAN STATE UNIV. EAST LANSING	ASSESSMENT OF ENERGY-RELATED TOXICANT STRESS IN AN ENGINEERED ECOSYSTEM	BOLING,.R.	80621401	INCR	80/03/18	$114,272
MICHIGAN STATE UNIV. E. LANSING	EVALUATION OF MODELS FOR A TOXICANT STRESSED STREAM ECOSYSTEM	BOLING, R.	80755501	NEW	80/03/25	$470,000
MICHIGAN TECHNOLOGICAL UNIV. HOUGHTON	CYANIDE REMOVAL FROM COKE MAKING AND BLAST FURNACE WASTE WATERS	SPOTTISWOOD, D.	80580702	CONT	80/02/04	$20,000
MICHIGAN, UNIV. OF ANN ARBOR	HEAVY METAL ACCUMULATION IN BENTHIC ALGAL COMMUNITIES	SICKO-GOAD, L.	80514603	INCR	80/01/28	$1,682
MICHIGAN, UNIV. OF ANN ARBOR	DATA ANALYSIS AND MANAGEMENT SYSTEMS FOR PUBLIC WATER SUPPLIES	DEININGER, R.	80599402	CONT	79/12/26	$56,300
MICHIGAN, UNIV. OF ANN ARBOR	ORGANIC & ORGANOTIN COMPOUNDS LEACHED FROM POLYVINYLCHLORIDE	BOETTNER, E.	80627502	CONT	79/11/23	$104,293
MICHIGAN, UNIV. OF ANN ARBOR	ICHTHYOPLANKTON LOSSES IN WESTERN LAKE ERIE 1975-77	PATTERSON, R.	80656502	CONT	80/03/07	$22,926
MICHIGAN, UNIV. OF ANN ARBOR	ECOLOGICAL STUDIES AND MATHEMATICAL MODELING FOR THE CONTROL OF CLADOPHRA ON THE GREAT LAKES	CANALE, R.	80660001	INCR	79/12/26	$50,030

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	MICHIGAN					
** RESEARCH **						
MICHIGAN, UNIV. OF ANN ARBOR	COAL TECHNOLOGY ASSESSMENT	KAN CHEN	80723301	NEW	80/01/02	$121,026
** TRAINING **						
MICHIGAN, WEST. ENV. ACT. ED. FDN. GRAND RAPIDS	CITIZEN EDUCATION & ACTIVITY	CONNER, P.	90077201	INCR	79/12/26	$3,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
M I N N E S O T A						
** RESEARCH **						
MINNESOTA, STATE OF MINNEAPOLIS	SURVEILLANCE OF CANCER INCIDENCE IN DULUTH/ ST. LOUIS, LAKE, AND COOK COUNTIES MINNESOTA AS AN INVEST	PETTERSEN, G.	80542802	CONT	80/01/02	$48,045
MINNESOTA, UNIV. OF ST PAUL	FORMATION OF ATMOSPHERIC AEROSOLS II	WHITBY, K.	80680101	INCH	80/01/22	$193,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M I S S O U R I					
** RESEARCH **						
WASHINGTON UNIV. ST. LOUIS	STUDIES TO IMPROVE THE RELIABILITY & SENSITIVITY OF BACTERIAL MUAUGENESIS	COMMONER, B.	80439503	INCR	80/01/31	$100,000
WASHINGTON UNIV. ST. LOUIS	SULFUR BUDGET IN POWER PLAT PLUMES - PROCESSING, MANAGEMENT AND ANALYSIS OF PROJECT STATE DATA	GILLANI, N.	80591802	INCR	80/02/15	$20,967
WASHINGTON UNIV. ST. LOUIS	TECHNIQUES FOR THE MEASUREMENT OF AEROSOL CARBON CONTENT	MACIAS, EDWARD	80600502	INCR	80/01/22	$40,000
WASHINGTON UNIV. ST. LOUIS	REGIONAL SCALE HAZINESS, ORIGIN, SPATIAL-TEMPORAL DISTRIBUTION, PROPERTIES AND EFFECTS ON ATMOSPHERI	HUSAR, R.	80660601	INCR	80/01/22	$30,101

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	M O N T A N A					
** RESEARCH **						
HELENA, CITY OF HELENA	EVALUATION OF ACTIVATED BIO-FILTER WASTEWATER TREATMENT PROCESS AT HELENA, MONTANA	NISBET, D.	80604701	INCR	79/11/07	$21,600
MONTANA STATE UNIV. BOZEMAN	LICHENS AS PREDICTORS AND INDICATORS OF POLLUTION FROM A COAL-FIRED POWER PLANT	EVERSMAN, S.	80536703	CONT	80/01/21	$10,858
MONTANA, UNIV. OF MISSOULA	INVESTIGATION OF THE BIOENVIRONMENTAL IMPACT OF FOSSIL-FUEL FIRED POWER PLANTS IN THE FORT UNION BAS	GORDON, C.	80561003	CONT	80/01/28	$115,000
** TRAINING **						
NEW WESTERN ENERGY SHOW HELENA	TRAVELING THEATER AND WORKSHOP PROGRAM	HYMAN, CAROL	90110001	NEW	80/01/28	$5,000
** FELLOWSHIPS **						
EATON, ALICE BOZEMAN	ENVIRONMENTAL HEALTH ENGINEERING	MONTANA STATE UNIV.	91146801	NEW	80/03/21	$2,500

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NEW HAMPSHIRE					
** RESEARCH **						
MANCHESTER WATER WORKS MANCHESTER	INVESTIGATION OF A FLUID BED CARBON REGENERATION SYSTEM AT MANCHESTER	KITTREDGE, D.	80537102	INCR	80/02/19	$200,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	N E W J E R S E Y					
** RESEARCH **						
NEW JERSEY MED SCHOOL NEWARK	COMPARATIVE STUDIES IN THE RAT ON THE EFFECTS OF CHLORINE, CHLORINE DIOXIDE AND CHLORAMINE IN DRINKI	ABDEL-RAHMAN, M.	80747301	NEW	80/02/19	$129,192
NEW JERSEY, UNIV. OF (RUTGERS) PISCATAWAY	OIL SLICK DISPERSAL MECHANICS (REVISED)	AHLERT, R.	80590102	CONT	80/02/19	$25,000
RUTGERS UNIV. NEW BRUNSWICK	EVALUATION AND DEVELOPMENT OF TEMPERATURE CONTROL STRATEGIES TO MAXIMIZE ORGANIC MATTER DEGRADATION	KAPLOVSKY, J.	80682901	INCR	80/01/02	$33,418
** DEMONSTRATION **						
NEW JERSEY DEPT OF ENV PROTECTION TRENTON	CENTER FOR REMOTE SENSING RESEARCH	PREUSS, P.	80685401	INCR	80/03/04	$794,053
** TRAINING **						
NEW JERSEY ASSN ENRTL COMM MENDHAM	TOXIC SUBSTANCE PUBLIC PARTICIPATION PROGRAM FOR NEW JERSEY	HAVRISKO, M.	90111101	NEW	80/03/19	$37,000
RUTGERS UNIV. NEW BRUNSWICK	QUIET COMMUNITIES, STATE AND LOCAL CAPACITY BUILDING ASSISTANCE	KAPLOVSKY, A.	90099501	INCR	79/12/05	$60,000
RUTGERS UNIV. NEW BRUNSWICK	INFORMATION AND MASS MEDIA SKILLS SEMINAR-WORKSHOPS. PRACTICAL WORKSHOPS FOR PERSONS CONCERNED WITH	AUMENTE, J.	90111001	NEW	80/03/26	$7,920
STONY BROOK-MILLSTONE WATERSHEDS ASSOC PENNINGTON	PROTECTION OF WATER SUPPLY SOURCES AT THE LOCAL LEVEL	MITCHELL, A.	90107401	NEW	80/01/10	$1,700
** FELLOWSHIPS **						
KORNDOERFER, A. NEW BRUNSWICK	BIOLOGY	RUTGERS STATE UNIV.	91145701	INCR	80/03/19	$176

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** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
AMERICAN INST OF CHEM ENGRNRS NEW YORK	DESIGN INSTITUTE FOR PHYSICAL PROPERTY DATA	FORMAN, J.	80727901	NEW	80/03/18	$50,000
AMERICAN NATIONAL STDRS INST NEW YORK	SECRETARIAT ACTIVITIES OF INTERNATIONAL STANDARDS ORGANIZATION (ISO) TECHNICAL COMMITTEE (TC) 147	RESNICK, I.	80570603	CONT	80/02/19	$31,153
AMERICAN SOCIETY OF CIVIL ENGRS. NEW YORK	DEVELOPMENT OF A TENTATIVE STANDARD FOR EVALUATING OXYGEN TRANSFER	MORGAN, R.	80586801	INCR	80/02/04	$8,400
AMERICAN SOCIETY OF CIVIL ENGRS. NEW YORK	FEASIBILITY OF AUTOMATED COMBINED SEWER SYSTEM ALLIED WITH METRO FLOOD WARNING SYSTEM	MORGAN, R.	80670201	INCR	79/11/27	$28,000
CLARKSON COLLEGE OF TECH POTSDAM	DIRECT FILTRATION STUDIES OF THE REMOVAL OF TRIHALOMETHANE PRECURSORS FROM TWO WATER SUPPLIES	EDZWALD, J.	80703401	NEW	79/11/23	$75,000
CLARKSON COLLEGE OF TECH POTSDAM	BIOASSAY DETERMINATION OF ALGAL-AVAILABLE PHOSPHORUS IN SUSPENDED SEDIMENTS OF GREAT LAKES TRIBUTARI	DEPINTO, J.	80715501	NEW	80/01/21	$68,110
CORNELL UNIVERSITY ITHACA	EXPERIMENTAL FIELD STUDIES TO EVALUATE THE EFFECTS OF ACIDIFICATION ON A STREAM ECOSYSTEM	LIKENS, G.	80710401	NEW	80/01/31	$58,920
GLEN COVE, CITY OF (NEW YORK) GLEN COVE	PILOT PLANT TESTING REMOVAL OF ORGANIC CONTAMINANTS FROM WATER SUPPLY	CURUSO, A.	80635501	INCR	80/03/10	$120,000
MANHATTAN COLLEGE BRONX	DEVELOPMENT OF METHODS TO DEFINE WATER QUALITY EFFECTS OF URBAN RUNOFF	MANCINI, J.	80682801	INCR	80/01/29	$40,000
NEW YORK HEALTH RES., INC. ALBANY	STRATOSPHERIC OZONE IN URBAN AIR	PARHAM, T.	80591301	INCR	80/01/28	$20,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	NEW YORK					
** RESEARCH **						
NEW YORK STATE DEPT OF ENVRTL CONS ALABANY	FUEL ECONOMY AND EMISSIONS PERFORMANCE OF DIESEL AUTOMOBILES	GIBBS, R.	80593402	CONT	80/03/31	$251,067
NEW YORK STATE DEPT. OF HEALTH ALBANY	EFFECTS OF POLYCHLORINATED BIPHENYLS ON GREAT LAKES PHYTOPLANKTON	PARHAM, T.	80612601	INCR	79/12/26	$24,000
NEW YORK STATE ENERGY R&D AUTHORITY ALBANY	ADAPTATION OF THE SIMPLEX GASIFICATION PROCESS TO DEWATERED SEWAGE SLUDGE	MULLEN, T.	80699801	NEW	80/01/22	$54,430
NEW YORK UNIV. (MED CTR) NEW YORK	CARCINOGENIC ACTIVITY OF REACTION PRODUCTS OF HUMIC SUBSTANCES AND DRINKING WATER DISINFECTANTS	VAN DUUREN, B.	80731701	NEW	80/03/13	$263,696
NEW YORK UNIV. (MED CTR) NEW YORK	DETERMINATION OF DIRECT AND INDIRECT ACTING ALKYLATING AGENTS IN DRINKING WATER	KLINE, S.	80731801	NEW	80/01/31	$73,900
NEW YORK UNIV. MEDICAL CTR. NEW YORK	ANALYSIS OF THE RELATIONSHIPS BETWEEN HAZE, OZONE, SULFATE AND TRANSPORT (HOST)	LIOY, PAUL	80659301	INCR	80/01/22	$5,900
RENSSELAER POLY INST TROY	MICROBIOLOGICAL ALTERATIONS IN WATER QUALITY IN DISTRIBUTION SYSTEMS AND GRANULAR ACTIVATED CARBON	HAAS, C.	80717201	NEW	79/12/27	$54,000
RENSSELAER POLYTECHNIC INST. TROY	AQUATIC ECOSYSTEM MODELING PACKAGE FOR MINICOMPUTERS	PARK, RICHARD	80629902	CONT	80/02/19	$54,037
SYRACUSE UNIVERSITY RES CORP SYRACUSE	STUDY OF THE WATER DISTRIBUTION SYSTEM AS A POTENTIAL SOURCE OF MUTAGENS/CARCINOGENS IN DRINKING WAT	HOWARD, P.	80641302	CONT	80/02/19	$79,906
** TRAINING **						
AMERICAN LUNG ASSOCIATION NEW YORK	AIR CONSERVATION TRAINING WORKSHOP	DU MELLE, FRAN	90109001	NEW	80/01/08	$9,780

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
N E W Y O R K						
** TRAINING **						
CTR FOR THE HUDSON RIVER VALLEY POUGHKEEPSIE	PUBLIC PARTICIPATION IN THE HUDSON RIVER VALLEY	DUNWELL, F.	90108001	NEW	80/01/10	$7,000
HUDSON RIVER VALLEY CTR POUGHKEEPSIE	PUBLIC PARTICIPATION FOR ENVIRONMENTAL TOXIC SUBSTANCES	DUNWELL, F.	90111201	NEW	80/02/15	$38,480
** FELLOWSHIPS **						
CATTO, WILLIAM SYRACUSE	ENVIRONMENTAL ENGINEERING	SYRACUSE UNIV.	91137101	INCR	80/03/19	$896
RICH, NICHOLAS ROCHESTER	ENVIRONMENTAL CONSERVATION	ROCHESTER, UNIV. OF	91148901	INCR	80/03/26	$100
SLADE, WILLIAM STONY BROOK	ENVIRONMENTAL ENGINEERING	NEW YORK STATE UNIV.	91148601	NEW	79/12/18	$613

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	N O R T H C A R O L I N A					
** RESEARCH **						
AMERICAN FISHERIES SOCIETY RALEIGH	WARMWATER STREAMS SYMPOSIUM	BAKER, DONALD	80733701	NEW	80/02/19	$2,000
DUKE UNIV. DURHAM	DETERMINATION OF EXCHANGE PROCESSES BETWEEN FORESTS AND THE ATMOSPHERE WITH EMPHASIS ON MICROSCALE	KNOERR, K.	80639302	CONT	79/12/27	$13,000
DUKE UNIVERSITY DURHAM	ANALYSIS OF PARTICULATE MATTER ON AEROSOL FILTERS USING PHOTOACOUSTIC SPECTROSCOPY	PALMER, R.	80740701	NEW	80/03/26	$35,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	OUTDOOR SIMULATION OF AIR POLLUTION CONTROL STRATEGIES	JEFFRIES, H.	80572603	CONT	80/01/28	$40,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	EXPERIMENTAL STUDY OF AEROSOL FORMATION MECHANISMS IN A CONTROLLED ATMOSPHERE	FOX, DONALD	80607002	CONT	79/12/18	$98,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	CHEMICAL REACTIONS OF AQUATIC HUMICS WITH C12, C102, AND 02 AND CHLORAMINES	CHRISTMAN, P.	80667901	NEW	79/11/23	$116,328
** DEMONSTRATION **						
NORTH CAROLINA, STATE OF RALEIGH	TOXIC SUBSTANCES COOPERATIVE AGREEMENT	LINDSEY, Q.	80705201	NEW	80/03/04	$385,000
NORTH CAROLINA, UNIV. OF CHAPEL HILL	REVIEW OF CONTROL PROCESSES RESEARCH	STERN, ARTHUR C.	80752201	NEW	80/02/12	$50,000
** TRAINING **						
NORTH CAROLINA STATE UNIV. RALEIGH	REGIONAL UNIVERSITY NOISE TECHNICAL ASSISTANCE CENTER	HART, F. D.	90098801	INCR	79/11/23	$60,000

O H I O

** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
CASE WESTERN RESERVE UNIV. CLEVELAND	THE DISPERSION AND FATE OF CONTAMINANTS IN A STRATIFIED LAKE	LICK, WILBERT	80571602	INCR	80/02/15	$14,183
CHILDREN'S HOSPITAL RES FDN COLUMBUS	LONGITUDINAL EVALUATION OF LEAD BODY BURDEN IN GROWING CHILDREN	LUBIN, A. H.	80416802	CONT	80/01/02	$216,285
CHRIST HOSPITAL INST. OF MEDICAL RES. CINCINNATI	DETERMINATION OF MINIMAL HUMAN INFECTIONS DOSE OF AN ENTEROVIRUS IN DRINKING WATER	SCHIFF, G.	80617301	INCR	80/03/12	$140,000
CINCINNATI, UNIV. OF CINCINNATI	EVALUATION OF THE HEALTH RISK ASSOC. WITH THE TREATMENT AND DISOSAL OF MUN. WASTEWATER SLUDGE	CLARK, C.	80544501	INCR	80/02/15	$122,266
CINCINNATI, UNIV. OF CINCINNATI	PERFORMANCE CHARACTERISTICS OF PACKAGE WATER TREATMENT PLANTS	MORAND, J.	80644901	INCR	80/01/22	$83,113
CINCINNATI, UNIV. OF CINCINNATI	MUTAGENESIS AND CARCINOGENESIS CHARACTERIZATION OF ORGANICS IN DRINKING WATER	LOPER, JOHN	80687203	CONT	80/02/28	$250,000
DAYTON, UNIV. OF DAYTON	HIGH TEMPERATURE DEGRADATION CHARACTERISTICS OF HAZARDOUS ORGANIC WASTES	DUVALL, D.	80511701	INCR	80/01/28	$58,591
MIAMI UNIV. OXFORD	THE EFFECT OF TOTAL WATER REUSE AND ALUM CONTROL ON FIRST PASS RETENTION	BRANDON, C. E.	80739401	NEW	80/03/26	$51,300
NATIONAL WATER WELL ASSOC. WORTHINGTON	DEVELOPMENT OF NATIONAL LIBRARY CENTER FOR WATER WELL TECHNOLOGY	LEHR, JAY	80586302	INCR	80/02/04	$183,260

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
O H I O						
** RESEARCH **						
NATIONAL WATER WELL ASSOCIATION WORTHINGTON	FIFTH NATIONAL GROUND WATER QUALITY SYMPOSIUM	LEHR, JAY H.	80731001	NEW	80/02/04	$44,954
OHIO STATE UNIV. (RES FDN) COLUMBUS	KINETIC STUDY OF SIMULATED ATMOSPHERES CONTAINING COMMON SULFUR, NITROGEN	CALVERT, J.	80647902	CONT	80/03/26	$115,000
OHIO STATE UNIV. RES. FDN. COLUMBUS	DEVELOPMENT OF A TISSUE SELECTIVE IN VIVO BIOASSAY FOR ENVIRONMENTAL AGENTS PRODUCING DNA DAMAGE	HART, R.	80533703	CONT	80/01/31	$543,062
OHIO STATE UNIV. RES. FDN. COLUMBUS	EVALUATION OF A SHORT-TERM IN VIVO SYSTEM FOR RISK ASSESSMENT OF ENVIRONMENTAL CHEMICALS	COURI, DANIEL	80737801	NEW	80/03/17	$223,435
WRIGHT STATE UNIV. DAYTON	CONFERENCE ON THE WATER ENVIRONMENT: ALGAL TOXINS AND HEALTH	CARMICHAEL, W.	80730901	NEW	80/03/06	$27,120
** DEMONSTRATION **						
OHIO STATE UNIV. COLUMBUS	ENVIRONMENTAL CHEMISTRY AND PHYSICS REVIEW PANEL: THE REVIEW AND REVIEW AND EVALUATION OF GRANT REQU	CALVERT, J.	80752401	NEW	80/02/13	$50,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD

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** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
OKLAHOMA STATE UNIV. STILLWATER	DETERMINATION OF ACTIVATED SLUDGE BIOKINETIC CONSTANTS FOR CHEMICAL AND PLASTIC INDUSTRIAL WASTEWATE	KINCANNON, D.	80684301	NEW	80/02/04	$258,590

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	O R E G O N					
** RESEARCH **						
OREGON STATE UNIV. CORVALLIS	TEMPORAL VARIABILITY IN STREAM ECOSYSTEMS	VANSICKLE, J	80622501	INCR	80/01/31	$7,525
OREGON STATE UNIV. CORVALLIS	INTERFERENCE FROM TURBID FINISHED DRINKING WATER AND HIGH STANDARD PLATE COUNTS	SEIDLER, R.	80628702	INCR	79/12/26	$15,603
OREGON STATE UNIV. CORVALLIS	WATERSHED AND STREAM SYSTEM CLASSIFICATION FOR NON-POINT SOURCE POLLUTION CONTROL	WARREN, C.	80718701	NEW	80/01/22	$75,000
OREGON STATE UNIV. CORVALLIS	ANALYSIS OF RECREATION IN RESPONSE TO WATER QUALITY IN THE PACIFIC NORTHWEST	FAULKENBERRY, G. D.	80722601	NEW	80/01/21	$40,361
OREGON STATE UNIV. CORVALLIS	MICROCOSM MODELING OF THE RESPONSE OF PERSISTENT AQUATIC COMMUNITIES TO DIELDRIN	LISS, W. J.	80745701	NEW	80/03/12	$80,000
OREGON STATE UNIVERSITY CORVALLIS	ANTIBIOTIC RESISTANT BACTERIA IN POTABLE WATER SUPPLIES	SEIDLER, W. J.	80712301	NEW	79/12/06	$78,477
** TRAINING **						
OREGON ED. & PUBLIC BROADCASTING SVC. PORTLAND	PUBLIC TELEVISION PROGRAM-TENTATIVE TITLE, "THE WATER CYCLE"	BRYANT, D.	90091801	INCR	79/12/26	$42,500

PENNSYLVANIA

** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
DREXEL UNIV. PHILADELPHIA	MICROWAVE SYSTEM FOR LOCATING FAULTS IN HAZARDOUS MATERIAL DIKES	KOERNER, R.	80476302	INCR	80/03/14	$60,000
PENNSYLVANIA MEDICAL COLLEGE PHILADELPHIA	EFFECTS OF POLYPHOSPHATES ON ESSENTIAL METAL STORES IN THE RAT	GABRIEL, K.	80678901	NEW	79/12/06	$65,660
PENNSYLVANIA STATE UNIV. UNIVERSITY PARK	DEVELOPMENT AND TESTING OF METEOROLOGICAL MODELS SUITABLE FOR AIR QUALITY SUTDIES	ANTHES, P.	80565903	CONT	80/03/10	$90,000
PENNSYLVANIA, UNIV. OF PHILADELPHIA	CASE CONTROL STUDY OF WATER QUALITY & CARCINOGENISES IN PA.	BAHN, A.	80459401	INCR	80/03/19	$52,848

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	RHODE ISLAND					
** RESEARCH **						
GORDON RES CONFERENCE KINGSTON	GORDON RESEARCH CONFERENCE IN ENVIRONMENTAL SCIENCES: WATER 1980	CRUICKSHANK, A.	80741401	NEW	80/03/20	$10,000
RHODE ISLAND, UNIV. OF KINGSTON	CHEMICAL STUDIES DIRECTED TOWARDS ECOLOGICAL DAMAGE ASSESSMENT OF PETROLEUM DISCHARGES INTO THE MARI	QUINN, JAMES	80547703	CONT	79/11/27	$102,323
RHODE ISLAND, UNIV. OF KINGSTON	MARINE ECOSYSTEMS RESEARCH LABORATORY (MERL)	PILSON, M.	80607202	INCR	80/01/02	$100,000

SOUTH CAROLINA

** RESEARCH **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
SOUTH CAROLINA DEPT. OF HEALTH & ENVRN COLUMBIA	OVERLAND FLOW FOR TREATING DOMESTIC WASTEWATER AT EASLEY, SC	WATKINS, M.	80392902	INCR	80/01/21	$73,766
SOUTH CAROLINA, UNIV. OF COLUMBIA	A MODEL FOR THE MANAGEMENT AND CONCEPTUAL DESIGN OF POTABLE WATER TREATMENT SYSTEMS	SHELTON, S.	80715801	NEW	79/12/17	$52,402

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
SOUTH DAKOTA						
** RESEARCH **						
SOUTH DAKOTA SCHOOL OF MINES & TECH RAPID CITY	APPLICATION OF COMPOUND ANALYSES BY X-RAY DIFFRACTION TO AEROSOL PROVENANCE STUDIES	DAVIS, BRIANT	80676901	INCR	80/01/22	$75,000
** DEMONSTRATION **						
SIOUX FALL PARK & REC. DEPT. SIOUX FALLS	COVELL LAKE RESTORATION PROJECT	MUNRO, K.	80512301	NEW	80/01/28	$175,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	T E X A S					
** RESEARCH **						
AUSTIN, CITY OF AUSTIN	INVESTIGATION OF HYDROLOGIC AND OPERATIONAL CHARACTERISTICS OF PAVING SYSTEMS	GRAVES, C.	80633801	INCR	79/12/26	$98,347
BAYLOR COLLEGE OF MEDICINE HOUSTON	DEVELOPMENT OF STD. METHODS FOR THE DETECTION OF ENTERIC VIRUSES IN RAW & TREATED POTABLE WATER	MELNICK, J.	80593301	INCR	80/02/04	$62,749
NORTH TEXAS STATE UNIV. DENTON	LLE METHOD FOR ANALYSIS OF VOLATILE HALIDES IN DRINKING WATER	GLAZE, W.	80547202	INCR	79/11/29	$56,070
SOUTHWEST RESEARCH INSTITUTE SAN ANTONIO	MEASUREMENT OF INGESTION OF CADMIUM, LEAD, ZINC AND CALCIUM IN SELECTED POPULATIONS IN THE USA.	JOHNSON, D.	80693901	NEW	80/01/28	$155,405
TEXAS A&M RES. FDN. COLLEGE STA	A REVIEW AND EVALUATION OF THE INFLUENCE OF CHEMICALS ON THE PERMEABILITY OF SOIL CLAYS	BROWN, KIRK	80682501	INCR	79/11/23	$44,058
TEXAS, UNIV. OF GALVESTON	COMBINED TESTING PROTOCOL FOR DETECTING ENVIRONMENCOMBINED TESTING PROTOCOL FOR DETECTING ENVIRONMEN	LEGATOR, M.	80619401	INCR	80/01/28	$2,327
TEXAS, UNIV. OF SAN ANTONIO	CLINICAL STUDY OF THE DENTAL EFFECTS IN A POLLUTION EXPOSED TO WATER FLUORIDE LEVELS	SMITH CHARLES	80623802	CONT	80/01/31	$378,243
** TRAINING **						
CITIZENS ENVIRONMENTAL COALITION HOUSTON	TO DEMONSTRATE AND INFORM PUBLIC ABOUT VEHICLE EMISSION INSPECTION AND MAINTENANCE BENEFITS AND RELA	LANKFORD, E.	90108901	NEW	80/01/21	$3,000
DFW REGIONAL AUTOMOBILE I/M EDUCATION PLANO	A TASK FORCE DEVELOPED TO PROVIDE VARIOUS DISPLAYS, DEMONSTRATIONS, PUBLICATIONS AND OTHER PUBLIC ED	KLEIN, T.J.	90102201	NEW	80/01/28	$2,000
EL PASO TASK FORCE FOR I/M EL PASO	EL PASO TASK FORCE OF I/M--A PUBLIC EDUCATION PROGRAM PRESENTING AND EXPLAINING THE BENEFITS OF INSP	HENDERSON, J	90108801	NEW	79/12/27	$1,000

T E X A S

** TRAINING **

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
TEXAS, UNIV. OF RICHARDSON	REGIONAL NOISE TECHNICAL ASSISTANCE CENTER, REGION VI	PUTNICKI, G.	90099601	INCR	79/11/23	$58,064
TEXAS, UNIV. OF (ARLINGTON) ARLINGTON	AN IDEA-FORMATION MODEL INCORPORATING VIABLE ALTERNATIVES FOR COMMUNITIES WILL BE CREATED AND WORKED	GEISEL, P.	90109401	NEW	79/11/23	$10,971

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	U T A H					
** RESEARCH **						
UTAH STATE UNIV. LOGAN	REOVIRUSES IN WATER POLLUTION TESTING	SPENDLOVE, R.	80652702	CONT	80/03/31	$44,083
UTAH, UNIV. OF SALT LAKE	WORKSHOP ON ACTINIDE ACCUMULATION BY MAN	WRENN, M.	80730101	NEW	80/01/28	$7,000
** FELLOWSHIPS **						
BLAKE, D. SALT LAKE CITY	CIVIL ENGRNG.	UTAH, UNIV. OF	91135101	INCR	80/03/26	$1,500
HERKIMER, M. ANN ARBOR	ENVIRONMENTAL & INDUSTRIAL HEALTH	MICHIGAN, UNIV. OF	91136701	INCR	80/03/27	$485

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	VERMONT					
** RESEARCH **						
VERMONT, UNIV. OF BURLINGTON	STUDIES OF WATERBORNE AGENTS OF VIRAL GASTROENTERITIS	DOLIN, R.	80654602	CONT	80/01/21	$91,834

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	V I R G I N I A					
** RESEARCH **						
HAMPTON INSTITUTE HAMPTON	WATER QUALITY LABORATORY FOR CHESAPEAKE BAY AND ITS TRIBUTARIES AT HAMPTON INSTITUTE	CHEUNG, LARRY	80622902	CONT	80/03/31	$189,296
MITRE CORP. MCLEAN	IDENTIFICATION OF TOXIC POLLUTANT DISCHARGES FOR UNIT PROCESSES	KING JOHN A.	80562001	INCR	79/12/31	$305,000
VIRGINIA POLYTECHNIC INST BLACKSBURG	EVALUATION OF COMPOSTING AS A MEANS FOR PESTICIDE DISPOSAL	MULLINS, D.	80725001	NEW	80/02/25	$44,687
VIRGINIA, MEDICAL COLLEGE OF RICHMOND	THE EFFECTS OF SELECTED ORGANIC CONTAMINANTS IN DRINKING WATER ON THE FUNCTIONS OF REPRODUCTIVE	BORZELLECA, J.	80648102	CONT	80/03/26	$543,256
VIRGINIA, UNIV. OF CHARLOTTESVILLE	PULSED POSITIVE ION NEGATIVE ION CHEMICAL IONIZATION MASS SPECTROMETRY: NEW METHODOLOGY FOR THE ANA	HUNT, DONALD	80579002	CONT	80/01/21	$50,000
** FELLOWSHIPS **						
FORTNER, LIMON E. RICHMOND	CERTIFICATION IN INFO. SYS.	VIRGINIA COMMONWEALTH	91107501	INCR	79/11/27	$35

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
W A S H I N G T O N						
** RESEARCH **						
WASHINGTON STATE UNIV. PULLMAN	MEASUREMENT OF TROPOSPHERIC HALOCARBONS BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY	CRON,D.	80403301	INCR	79/12/26	$41,268
WASHINGTON, UNIV. OF SEATTLE	OPTICAL EFFECTS OF ATMOSPHERIC AEROSOL	WAGGONER, ALAN P.	80066513	INCR	79/12/26	$41,536
WASHINGTON, UNIV. OF SEATTLE	FIELD STUDIES OF THE OXIDATION OF SO2 IN CLOUDS	HOBBS, PETER	80526302	CONT	80/03/26	$25,000
WASHINGTON, UNIV. OF SEATTLE	EXAMINATION OF MORTALITY DATA FROM MALIGNANT MELANOMA	LEE, JOHN	80684201	NEW	80/01/28	$15,370
** DEMONSTRATION **						
LONGVIEW, CITY OF LONGVIEW	LAKE SACAJAWEA REHABILITATION.	LLOYD INMAN	80526401	INCR	79/12/05	$721,358
WASHINGTON, UNIV. OF SEATTLE	REVIEW OF ENVIRONMENTAL BIOLOGY RESEARCH FOR EPA GRANTS PROGRAM	TAUB, FRIEDA	80752501	NEW	80/02/12	$50,000
** FELLOWSHIPS **						
ALLEN, JACKLEEN BELLIGNHAM	BIOLOGY	WESTERN WASHINGTON UNI	91149701	NEW	79/12/18	$2,500

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	W E S T V I R G I N I A					
** RESEARCH **						
WEST VIRGINIA UNIV. MORGANTOWN	IMPLEMENTATION, OPERATION AND MAINTENANCE OF THE SMALL WASTEWATER FLOWS CLEARINGHOUSE PHASE II	ALDRIDGE, D.	80652501	INCR	80/01/10	$225,000

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	W I S C O N S I N					
** RESEARCH **						
MARQUETTE UNIV. MILWAUKEE	EVALUATION OF THE CHARACTERISTICS & TREATABILITY OF URBAN RUNOFF RESIDUALS	ZAMONI, A.	80678501	INCR	80/01/28	$35,600
WISCONSIN, UNIV. OF SUPERIOR	ESTIMATES OF "NO EFFECT" CONCENTRATIONS OF SELECTED PESTICIDES IN FRESHWATER ORGANISMS.	CALL, DANIEL J.	80686402	INCR	79/12/26	$71,237
WISCONSIN, UNIV. OF MADISON	COAL FIRED STEAM PLANTS: HUMAN AND ENVIRONMENTAL EXPOSURE TO AIR AND WATER POLLUTANTS	CHESTERS, G.	80687801	INCR	80/02/19	$127,445

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
P U E R T O R I C O						
** DEMONSTRATION **						
PUERTO RICO ENVIRONMENTAL QUALITY BD SAN JUAN	COOPERATIVE AGREEMENTS FOR STATE TOXIC SUBSTANCES CONTROL PROGRAM DEVELOPMENT AND IMPLEMENTAION OF	ROHENA, S.	80703001	NEW	80/03/03	$258,394

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	FOREIGN COUNTRIES					
	ISRAEL					
** RESEARCH **						
JERUSALEM, HEBREW UNIV OF ISRAEL	DISEASE TRANSMISSION ASSOCIATED WITH LAND APPLICATION OF WASTEWATER	SHUVAL, H.	80641601	INCR	79/12/26	$250,092

APPLICANT MUNICIPALITY	TITLE	PROJECT DIRECTOR / FELLOW	GRANT NO	TYPE OF GRANT	DATE OF AWARD	AMOUNT OF GRANT AWARD
	F O R E I G N C O U N T R I E S NEW ZEALAND					
** RESEARCH **						
AUCKLAND, UNIV. OF AUCKLAND	TISSUE CADMIUM CONCENTRATIONS AND RELATED HEALTH EFFECTS IN GROUPS WITH HIGH CADMIUM	KJELLSTROM, T.	80705801	NEW	80/03/04	$99,700

*U.S. GOVERNMENT PRINTING OFFICE: 1981 341-082/212 1-3